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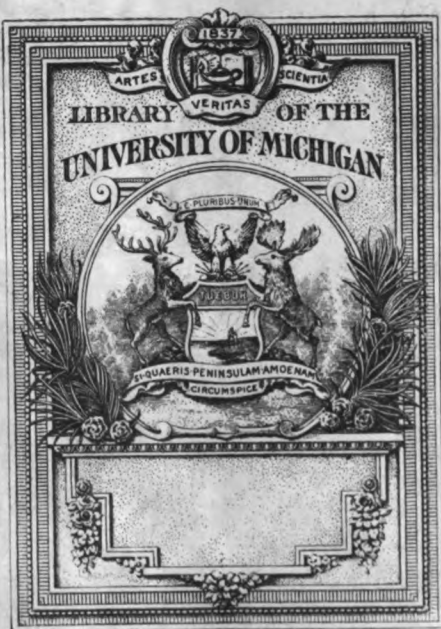
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Vol. IV.]

MAY, 1851.

[No. 1.]

THE NORTH-WESTERN

MEDICAL AND SURGICAL

JOURNAL.

EDITED BY JOHN EVANS, M.D.,

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ONE OF THE PHYSICIANS TO THE ILL. GEN. HOSPITAL; FORMERLY SUPT OF THE
IND. HOSPITAL FOR THE INSANE, ETC., ETC.

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NOTICE TO SUBSCRIBERS.

With this number of the Journal we send out our bills including advance payment for the ensuing year. Of course we wish to have them paid—by remittance. The *Intelligencer* will be sent regularly every alternate month, to those only who have paid for the Journal including the current year's subscription.

NOTICE TO READERS AND CORRESPONDENTS.

We have received several Original Papers, numerous Pamphlet Lectures, College Circulars, Reports, &c., which our want of room prevents an acknowledgement of in this number. We will try and reserve plenty of room hereafter, to acknowledge our obligations in such matters. In the mean time we return our hearty thanks to those who have remembered us in the distribution of their favors.

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Part 1.—Original Communications.

ARTICLE I.

Clinical Lectures and Cases in the Medical Wards of the Illinois General Hospital. By N. S. DAVIS, M. D., Prof. of Principles and Practice of Medicine in Rush Medical College, and one of the Physicians to the Hospital. Reported by B. F. WHITE, Interne.

(Continued.)

CASE 2d. E. B., Irish laborer, aged about 20 years, admitted into the Hospital this day, Jan. 10th. Visited by the attending physician accompanied by his class at 5 o'clock P. M.

You perceive, said the Doctor, that the position of the patient is dorsal with a slight inclination to the right side; his face is deeply flushed, but of a purplish or dingy red color, with something of a bloated aspect; his expression dull and inactive; his skin dry, harsh, and warmer than natural; his chest is broad and full, but his breathing short, difficult, and painful; his cough appears frequent and productive of deep-seated pain, and soreness in the central part of the right half of the chest, with a pretty copious liquid, and reddish or bloody expectoration, which you will see by looking in this vessel, is pretty homogeneous, and not simply streaked with blood. It is tenacious, however, and of a venous rather than arterial redness. His tongue, you perceive, is covered with a pretty thick yellowish fur, quite dry, and slightly red-

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ened along the edges and tip ; his pulse is little more than 100 per minute, not full, but easily compressed ; thirst moderate ; urine scanty and high colored ; and his bowels rather tympanitic, with loose watery evacuations. The patient says he was seized with a sense of chillness, pain in his chest, difficult breathing, and cough, while at work four days since, which soon became so severe as to compel him to return home and take his bed. This chillness soon ceased and gave place to a head-ache, thirst, and all of the symptoms which we have just passed in review. He has had no medical attention, but has taken two or three doses of physic, (castor oil and epsom salts), which accounts, in part, at least, for the looseness of his bowels at the present time.

This brief history of the case, with the prominent symptoms which we have passed in review, is sufficient to direct our attention to the thoracic viscera as the special seat of disease.

Indeed, all the general symptoms sufficiently characterize the case, as one which is commonly styled *lung fever*, or *winter fever*, in many parts of the country, and which in some sections is exceedingly prevalent and fatal. But to gain rational and accurate indications of treatment, we must ascertain more definitely the location, extent, and stage of the disease. As I lay the chest bare, you observe the left side moves much more freely with each inspiration than the right. Each of you can detect the difference in the resonance, as I compare the one side with the other, by percussion ; there being pretty decided dullness over the upper, and the greater share of the middle lobe of the right lung. The dullness seems greatest about two inches above the nipple. By extending the percussion over the abdominal viscera we find no indications of enlargement of the solid viscera, but there is a general tympanitic condition.

Returning to the chest I apply my ear to the left side and hear nothing but an exaggerated or puerile respiration.



Over the infra clavicular region of the right side, the respiration is distinctly bronchial and somewhat intermixed with a coarse mucous rattle or rhonchus, and the voice is decidedly bronchial. Over the upper part of the mammary region and bordering on the axilla, the fine crepitant râle is very distinct. I find no morbid sounds over the remaining part of the chest. The cardiac sounds are normal, the impulse though frequent is only of moderate force. Such are the physical signs elicited by percussion and auscultation, and they indicate simply an unnaturally solid condition of the upper, and part at least, of the middle lobes of the right lung. But if taken in connection with the general symptoms, particularly the fever, deep seated pain in the chest, oppressed respiration, cough, and bloody expectoration, there is left no difficulty or doubt in reference to a proper *diagnosis*. The solidity indicated by the dullness and bronchophony, is simply an early stage of *hepatization* of the right lung, while the crepitant râle heard at the lower and lateral margin of the dulness, shows that inflammation in its first stage exists, and is probably still extending to other portions of the lung.

Diagnosis. We have then, gentlemen, a case of acute Pneumonia, in the fourth day of its progress, involving the upper and middle lobes of the right lung, in a considerable portion of which the disease has passed into the stage of infiltration, more commonly called *hepatization*. But this is not all.

For the appearance of the tongue, the tympanitic state of the abdomen, and the loose or watery evacuations, show plainly that the pneumonia is complicated with irritation, if not a low grade of inflammation of the mucous membrane of the alimentary canal. Before calling your attention to the treatment, however, I wish you to mark well the differences between this case and that of T. Y., discharged a few days since. (See March No. of Journal, Ed.) The principle disease in both was acute pneumonia, and both were admitted at about the same period of advancement. But you will rec-

ollect the former case presented us with a bright arterial flush on the face, an active or excited expression of countenance, a very hot skin, and a moderately frequent and full pulse, without any abdominal symptoms. While in the present case you have a darker, more dingy flush, less heat of skin, a quicker but less forcible pulse, and a decidedly dull, indifferent expression, with a constant disposition to drowsiness, and sometimes incoherent talking. You see him falling into a drowsy half-sleeping condition while I am talking by his side. And what does these differences indicate? This is a question of the utmost practical importance. When remarking on the former case, to which I have alluded, it was said that the numerical statistics of M. Louis in regard to the treatment of Pneumonia, were practically not worth a serious examination; simply because they include under the same general head, cases the most diverse in every particular, except the simple existence of pneumonic inflammation. And here you have valid proof of the assertion. Thus in the case of T. Y., we had a strongly marked inflammatory diathesis; or as I should prefer to call it, a high degree of *tonicity* of the solids, with energy of organic action, which required the abstraction of no less than 30 oz of blood, to make a decided impression on the progress of the disease; while here we have altogether the reverse, viz: diminished tonicities with enfeebled organic action, as indicated by the darker hue of the face, the dull and indifferent expression, the early tendency to mental wandering and somnolency, and above all by the frequent and compressible pulse, unaccompanied by any increase in the force of the heart's action. Now, although both patients were attacked with essentially the same disease, and so far as the lapse of time is concerned, they came under our observation at the same period of their progress, yet from the circumstances already detailed, I venture to predict that this patient will not bear the abstraction of the half of 30 oz. of blood without a dangerous degree of prostration.

And the reasons are to be found in the special condition of the solids and fluids of the system, and the grade of activity of the vital properties, at the time of the supervention of disease. You are all aware that exposure to bad air, unwholesome food, and insufficient clothing, as among the poor of cities, in large Hospitals, Jails, Camps, &c., there is induced such a state of the solids and fluids of the system as to strongly favor the occurrence of Typhus Fever, Erysipelas, and indeed, to give whatever disease may occur, a typhoid tendency. So, too, in highly malarious districts, where Intermitting and Remitting fevers prevail during the Summer and Autumn, the solids and fluids undergo a change which modifies, to a greater or less extent, the organic or vital functions. And although this modification is by no means identical with that which constitutes the foundation of true typhus, yet it is evidently accompanied by an impaired tonicity of the solids, and consequently, diminished energy of the functions of *innervation* and *circulation*. And hence any disease, a pneumonic inflammation for instance, occurring in such a system would meet with less of what we may term, vital or organic resistance to its progress; it would pass through its several stages more speedily; the first or congestive stage would be followed by less perfect reaction; the effusion or infiltration in the second stage, would be less plastic and more diffused; and there would be a much earlier failure of innervation, and consequently of capillary circulation. These are the characteristic features of those *Lung Fevers*, *Bilious Pneumonias*, *Typhoid Pneumonias*, &c., which are so frequent and fatal in many malarious districts throughout the west, during the winter and spring months. And they are precisely the features which distinguish the case before us from that of T. Y., to whom your attention was directed a few days since. In practice you will find every shade or degree of developement of these features, from the full, healthy degree of tonicity and vital energy exhibited by T. Y., to so great an impairment of these

properties, that the first onset of disease meets so little resistance as to scarcely develope reaction in any degree, and the patient is overwhelmed with the most fatal congestion. You, then, who intend to practice medicine, could not be guilty of greater folly than to follow the custom, far too prevalent in the profession, of adopting a special system of treatment of pneumonia or any other acute disease. Such practitioners seem to think it only necessary to determine that pneumonic inflammation exists in any given case, and they bleed, or puke, or purge, according to the system they have adopted, as a matter of course. Hence, while they, during one season, meet with fair success, during another, they loose half their patients before finding out that they are dealing with disease of a different type; or as I should prefer to term it, with disease occurring in systems with vital properties materially changed.

But you may be ready to ask how the physician is to measure the specific character of the vital properties of any given patient? I answer by learning to appreciate accurately the true condition of the circulation, both cardiac and capillary, the color and temperature of the skin, and the physiognomy of the patient. Thus an accurate observer would recognize at once, in the dingy color, and dull expression of the face of this patient, both defective innervation and capillary circulation; which, added to his quick but compressible pulse, his drowsiness, and his lack of acute perception of pain, is abundantly sufficient to mark the specific tendency of the case. I detain you to dwell on these ideas of pathology thus minutely because in the section of country where most of you will practice, it is especially important that you should have the most perfect knowledge of all that class of diseases, of which the case before us serves as a type of one of its most important varieties. And, also, because I wish to destroy that very erroneous idea which considers the whole of *diagnosis* to consist in determining the location, extent, and stage of disease, leav-

ing the determining of its specific character entirely out of view.

Treatment. In regard to the treatment of this case, we have the same indications to fulfill or objects to accomplish, as in the same stage of pneumonia occurring under any other circumstances, viz: 1st. To arrest the determination of blood to the diseased part, and thereby prevent the further extension of disease. 2d. To cause the removal of obstruction of the pulmonary tissue now existing in the form of hepatization. 3d. To allay general irritability and sustain the organic actions. But in choosing the means for accomplishing these objects we must have strict reference to that special condition of the system on which we have just been dwelling.

As the patient is young, naturally of a sanguine temperament, the inflammation still extending as indicated by the crepitant râle around its margin, we shall bleed him from the arm notwithstanding the evident impairment of the vital forces. But we shall watch its effects closely, and be ready to sustain the system early and efficiently, if the symptoms which follow require it. Instead of following the bleeding, however, by full nauseating doses of Antimony, or a brisk mercurial cathartic, I shall direct him a powder, composed of Calomel 4 grs. Pulv. Opium 1 gr. Tart. Ant. $\frac{1}{4}$ gr., to be repeated every three hours through the night, and warm fomentations over the whole abdomen and lower part of the chest. By a very moderate bleeding I shall expect to arrest the determination of blood to the lungs, and procure at least, temporary relief from the oppression of the respiration; while the powders will tend to maintain that relief, by their powerfully diaphoretic and alterative effects, and at the same time soothe and quiet the excessive irritability of the mucous surface of the alimentary canal.

Jan. 11th, 9 o'clock, A. M. Dr. D. remarked that having dwelt so fully on the nature of this case yesterday, he should detain the class only long enough to note carefully the effects

of treatment and the progress of the case from day to day, and then occupy their attention with other cases of interest. You perceive, continued the Doctor, scarcely a change in the general symptoms of this patient, except that respiration is less hurried, less painful, and more full. The cough and expectoration is also a little more soft and free. The somnolency, the wandering of mind, the frequency of pulse, and the general expression of the patient, remain about the same as last evening. The skin and tongue, however, are more moist and there have been no evacuations from the bowels. The abstraction of about 12 oz. of blood last evening induced a decided tendency to syncope, with free perspiration and much relief to the breathing, although the pulse neither became more full nor less frequent. The breathing has continued easier through the night, and I am now unable to detect any crepitant râle over any part of the right side; otherwise the physical signs remain unchanged. I shall direct him a laxative composed of Castor Oil 2 parts, Oil Turpentine 1 part, mixed, ʒss., and repeat it at the end of four hours if necessary. Discontinue the powders directed yesterday until the bowels have been evacuated, and then renew them at intervals of 4 hours. Also direct immediately a large blister over the infra clavicular region of the right side.

Jan. 12th, 9 o'clock A. M. The first dose of Oil yesterday procured two or three fæcal evacuations of a color and consistence much resembling Tar—the blister has drawn well, and the patient has, since the operation of the oil, taken two of the powders composed of Calomel, Antimony, and Opium. The abdomen is less tympanitic, the breathing still improved, the tongue less red along the edges but still coated and dry on the surface, the expectoration copious but of a redish brown or dirty appearance, urine pretty free but high colored, the skin scarcely above the natural temperature, and the face still somewhat leaden or purplish. The patient has slept much, but sleep disturbed and talkative; his pulse 105 per minute

and easily compressed. Little or no change in the physical signs since yesterday, though the blister renders percussion difficult and unsatisfactory. The whole aspect of the patient shows a moderate degree of improvement since yesterday, but the continued frequency of the pulse, its want of force, the cool state of the skin &c., admonish us to watch closely the vital energies of the patient, and see to it, that in removing the disease we do not allow too great a degree of prostration. The powders must be omitted, and I shall simply direct the following mixture, one teaspoonful every two hours, viz: Compound Honey of Squills, (Hive Syrup,) \bar{z} j, Spts. Nit. Dulc, \bar{z} j, Tinct. Opii et Camph., \bar{z} j., mixed.

Jan. 13th, 9 o'clock A. M. The patient's face is paler, the skin quite cool, the eyes a little more sunken, less drowsy, but still some incoherent talking when left to himself, abdomen not tympanitic; bowels evacuated twice since former visit, and the discharges dark green. The tongue is still dry in the middle, but more moist, and the coat is a little loosened along the margin; the pulse 110, and more feeble than yesterday. The expectoration is copious, less bloody, but streaked with redish purulent matter. There is evidently a less degree of dullness on percussio over the upper part of the right side, and less bronchophony, but more coarse mucous rhonchus or rattle.

These symptoms present the case in a critical aspect. For while the physical signs, the condition of the abdomen, and the appearance of the tongue, indicate improvement, the continued rapidity and increased feebleness of the pulse, with the appearance of the matter expectorated, show a still further prostration and, threaten the commencement of a diffused suppuration in the pulmonary tissue, which unless promptly arrested, must prove fatal. Hence I shall discontinue the cough mixture directed yesterday, and substitute the following, viz: carbonate of ammonia, 4 grs.; pulverized gum camphor, 1gr.; to be given every four hours; and between each

dose 20 drops of the following, viz : tincture of bloodroot, 3j; tincture opium, 3j, mixed ; and another blister placed on the lower part of the right side immediately.

5 o'clock P. M. Skin warmer, face more flushed, and pulse more forcible. Continue the drops same as before, but direct the powders of camphor and carbonate of ammonia only once in eight hours.

Jan. 14th, 9 o'clock A. M. All the patient's symptoms much improved. The countenance looks brighter ; tongue is moist, and the coat becoming detached ; expectoration thicker and more yellow ; cough less ; pulse only ninety-five per minute ; and the dullness over the upper part of the right side still less than yesterday. This morning, for the first time, the patient is found lying partly on his left side. Discontinue all medicine except the Tinct. Sanguinaria and Tinct. Opii, mentioned yesterday.

Jan. 15th, 9 o'clock A. M. Patient still doing well. Manifests a little desire for food this morning. Treatment the same.

Jan. 16th, 9 o'clock A. M. Patient steadily improving. Cough and expectoration less, and accompanied with but little sense of soreness in the chest. From this time forward no other treatment was required than the bloodroot mixture three or four times a day, and once a laxative of castor oil. The patient was discharged well on the 22d, twelve days after his admission.

In his concluding remarks on the case, Dr. Davis observed, that every member of the class would now be able to understand what is meant by individual differences of type and tendency in diseases. This patient and T. Y., already several times referred to, were both attacked with plain, unmistakable pneumonic inflammation, but how different the general aspect, progress and treatment of the two ; and yet both recovered in nearly the same length of time. They illustrate more forcibly to the mind of the student than a whole volume of

written observations, the great supremacy of rational over empirical practice in medicine.

To continue a full report of the Professor's remarks on the following cases would occupy too much space, and hence we shall give only such points as are deemed most useful to the practitioner.

CASE 3d. Mr. Jackson, Norwegian, aged twenty years, admitted into the Hospital Jan. 18th, 1851. The patient stated that he had had a paroxysm of intermittent fever every day for several weeks, but during the last four days had had a pretty constant pain in the left hypochondriac region, sometimes very sharp, and always aggravated by coughing or a forced inspiration. His pulse was ninety per minute and moderately full; tongue slightly coated; no appetite; skin dry and warmer than natural; cough frequent, but short and dry. Auscultation and percussion elicited no unnatural sounds, but on extending percussion below the diaphragm over the left hypochondriac region, the whole space occupied by the spleen was found to be very tender, and the organ itself considerably enlarged. The intermittent was thus found, in this case, to be complicated with sub-acute inflammation of the spleen. After pointing out the diagnostic symptoms and signs which distinguish splenitis from other diseases with which it would be likely to be confounded, it was stated that different views were entertained in regard to the best mode of treating cases of this complicated character.

Some practitioners, fearing the tonic or stimulating qualities of quinine and other anti-periodics, withhold all such remedies until they have subdued the local inflammation, and then they resort to them for the purpose of interrupting the paroxysms of the general disease. Others, viewing the local inflammation simply as a consequence of the repeated congestions induced by the cold stage of the intermittent, tell us to arrest the chills first. In other words, to break up the general disease and the local inflammation will disappear without treatment. Both

these views are, to some extent, erroneous ; and the practice founded on them will often prove unsuccessful. With the aggravating influence of a protracted chill, recurring every day, or every second day, it is often extremely difficult to subdue a local inflammatory affection ; especially in a tissue so distensible and vascular as that of the spleen, and hence a suspension of such chills becomes an essential part of the treatment for removing the disease itself. On the other hand, the influence of the local inflammation on the circulation is such as to favor the recurrence of the chills, and if left unmitigated by direct treatment, will often continue the general disease or convert it into a *remittent* in spite of the most faithful use of anti-periodics. Far the most rational and successful mode is, to direct the treatment both to the general disease and its local complication at the same time. And hence I shall direct, said the Doctor, Sulph. Quinine, 15 grs. ; Pillulæ Hydrag., 15 grs. ; and Pulv. Opii, 1 gr., to be divided into three powders, and one to be taken every four hours, beginning twelve hours before the expected recurrence of the next paroxysm. I shall also cause the affected side to be freely cupped immediately, and the cupping to be followed by warm fomentations.

Jan. 11th. The treatment ordered yesterday has been faithfully carried out. The chill appeared at the usual time to-day, but was much less severe and of shorter duration than usual, and was followed by very little febrile reaction. There is also less tenderness and pain in the region of the spleen. Ordered the same quantity of Sulph. Quinine, Blue Mass and Opium, to be repeated before the time for another chill, and a blister to be applied to the left side.

Jan. 12th. No chill or febrile paroxysm to-day. Blister drawn well, and the pain and tenderness in the side still further diminished. No evacuations from the bowels during the last two days. Ordered Sulph. Magnesia sufficient to move the bowels moderately, and a single dose of Quinine, 5 grs., and Opium, 1 gr., to be given in the morning.

Jan. 13th. The salts yesterday procured two or three free evacuations of a dark green color, and the patient slept well through the night. No return of fever, and at present, only a very slight degree of soreness in the affected side, and much less enlargement of the spleen than at first. From this time forward the patient required no other treatment than a single dose of three grains of quinine every morning, and a continuance of the counter irritation over the region of the spleen. He was discharged well on the eighth day after admission.

REMARKS. The propriety of thus directing our treatment to the general and local affections in these cases, at one and the same time, was further illustrated by attention to cases 4th and 5th; both admitted with intermittent fever of several weeks duration, and one complicated with sub-acute bronchial, and the other hepatic inflammation. Both were promptly cured by the free use of the ordinary anti-periodics, conjointly with local depletion and counter irritation, and the very moderate use of mercurial alteratives. The class were also warned, in connection with these cases, against committing the very common mistake, of supposing an *ague* cured so soon as the paroxysms are suspended; a mistake which has occasioned many relapses, and consequently done much to destroy the confidence of the community in the efficacy of medicines in the treatment of this disease. It should be remembered that the paroxysms do not constitute the disease, but only the temporary manifestation of the change in the solids and fluids of the system which is induced by the efficient morbid cause; and which not only precedes the paroxysms, but may also continue for some time after these have ceased. Hence, in all cases, especially of chronic *ague*, the anti-periodic and tonic remedies should be continued moderately for a considerable time after the chills have ceased to recur, and until a full healthy tone of the system is restored.

CASE 6th. Mr. M——, an Irish sailor, aged 40 years, admitted Nov. 29th, 1850. He had been taken several weeks

previously with pain, swelling, and lameness of the right hip, accompanied by general febrile symptoms and emaciation. Some ten days since, he presented himself at the College Clinique, where he was examined by Prof. Brainard, and his hip found to be distended with a very large abscess. It was opened by Prof. Brainard just behind the trochanter major, and a large quantity of thick, fetid pus was discharged. He was ordered to use wine and bark internally and keep the affected side at rest. These directions have been followed until he was brought into the Medical Ward of the Hospital to day. In calling the attention of the class to the case, Prof. Davis remarked, that large and unhealthy abscesses originating in the areolar or cellular tissues of the body, had been unusually frequent during the two months which have elapsed since the subsidence of the epidemic cholera in this city. The question of paramount importance in the case before us is, whether the abscess is limited to the soft parts, or has its origin from disease of the hip-joint, on the one side, or the bones of the sacrum on the other. If we seize the foot of the patient and rotate the thigh so as move the head of the femur freely in the socket, or flex the thigh on the pelvis, or bear the head of the bone directly into the bottom of the socket, by firm pressure on the trochanters, no marked pain is produced in the hip-joint; a result hardly compatible with the existence of such a degree of disease of that joint as to give rise to such an abscess. Again, on introducing the probe, it passes upward and backward, deep beneath the glutei muscles, nearly its whole length. But no rough or dead bone can be felt in any direction. Neither is there any special tenderness over any part of the sacrum. These facts, together with the comparatively short time since the affection first manifested itself, lead to the conclusion that the disease is confined to the cellular tissue beneath and between the glutei muscles, and that neither his hip-joint nor the bones of the pelvis are yet involved. But the pale appearance of the tongue and

lips, the frequency of the pulse, the thin character of the pus, &c., all indicate a greatly impaired state of the vital forces.

Such being the present condition of the patient, the first and almost the only object of treatment, is to improve the quantity and quality of the blood and the tonicity of the solid tissues. In common parlance, to improve the general health. And how can this be done most effectually? Not by diffusable stimulants, such as wine or brandy and bark; because in this case the properties of *irritability* and nervous susceptibility, are already too active; but by such tonics as improve the strength or tonicity without increasing irritability, and also facilitate the formation of red-corpuscles of the blood. We have here an important practical distinction which is not always duly regarded by the physician. In the true typhus state, the irritability and nervous susceptibility are both diminished, giving an expression of dullness and indifference, not only to the countenance of the patient, but to all his physical or organic actions. In such a state, stimulants are not only well borne, but are often necessary to the maintainance of life. But in the case before us, and in all others like it, we have, it is true, an impoverished condition of the blood; an impaired tonicity, and a too rapid waste of the solids, yet there exists with these, increased irritability and nervous mobility, as indicated by the anxious expression of countenance, the frequency of the pulse, neuralgic pains, and general restlessness. Hence, this patient will be put on the use of the muriated tincture of iron and tincture of conium, equal parts mixed, forty drops three times a day, taken in half a wine-glass full of sweetened water. His diet must be simple but nutritious, consisting of plain meat broth, rice, milk and bread. External applications to the affected hip can be of little use at present.

The foregoing treatment was pursued, and the patient began rapidly to improve, and continued to do so for nearly two weeks. The abscess became entirely healed, the swelling

had disappeared, and patient improved in flesh and began to walk about the ward with facility. While thus progressing satisfactorily, he began to complain of severe pains, mostly of a lancinating character, in the sacrum, about the tuberosity of the ischium, and along the course of the spermatic cord, extending sometimes to the testicle of that side. The whole surface over these seats of pain became acutely sensitive to the touch, and the evacuations from the bowels greatly aggravated the pain, especially anterior to the crest of the ilium and along the course of the spermatic cord. The influence of the passage of fæces along a certain part of the rectum, in aggravating the pain in the cord, was very marked. These symptoms were well calculated to excite, in the minds of some, doubts in regard to the correctness of the former diagnosis; and to cause fears of the formation of another abscess in connection with the bones of the sacrum. But the plainly neuralgic character of the pains—the sensitiveness of the skin over the seats of pain—the little disturbance of the pulse—and, above all, the steady improvement in flesh and strength—led the Doctor to attribute the difficulty to internal hemorrhoids, complicated with inflammation (or, at least, irritation) of the ganglions of the sacral and lumbar nerves. Hence free cupping over the sacrum and loins, was applied and directed to be repeated daily, for three or four days in succession. This was done, and resulted in entire relief, since which time the patient has remained well, and is doing sailor's duty at this date.

ARTICLE II.

History of Medical Education and Institutions; the New York Journal &c.; Reviewing in General. By N. S. DAVIS, M. D., Chicago, March, 1851.

“Far better would it be that new publications should pass unnoticed by the press, than that they should be spoken of only to be misrepresented. And we repeat that it makes no difference whether the misrepresentation be eulogistic or dam-natory, for it is the right of the *reader* to be addressed *truly*, and of the *author* to to be judged *fairly*. If the critic lose sight of his duty in these respects, he ceases to be a trustworthy guide to the public, or faithful to the literature of which he is a professed champion.” See Dr. Stille’s Report on Medical Literature, May, 1850.

I make the above quotation as an appropriate introduction to a few remarks on the following notices of my recently published work on the “History of Medical Education and Institutions”; the first of which appeared in the January number of the N. Y. Journal of Medicine, under the head of “Critical Analysis.” I give it to the reader entire as follows, viz :

“The title of this work sounded so well in our ears, that we read it through from the beginning to the end. Having done so, we confess ourselves to have been grievously—most grievously disappointed. It is not what the title would indicate, or what we expected. Instead of being a fair and impartial history of what has been done in medicine in this country, it appears to us to be really nothing more than a tirade against quackery, and the various quackish practices which the author supposes to exist in our Medical Colleges. We shall, for a moment, glance at its contents. It consists of four chapters. The first is a “History of the Medical Profession and Medical Education in the British Colonies of America, from its first settlement to the achievement of their independence.” This chapter occupies forty-eight pages, and is the only part of the work that has any pretensions to historical research. On looking over it, however, we find it nothing more than a crude compilation, altogether drawn from the writings of two or three

authors, who have taken the trouble to give us full and elaborate accounts of this period of our medical history. Dr. Davis has not added a single new fact, as far as we can see, and the jumble and errors of names and dates is such as to show that he is entirely ignorant of the original sources of information. Now and then, indeed, he ventures and expression of opinion concerning a paper or an essay, but it is almost always in the language of some previous writer.

"The second chapter embraces the history of medicine in this country from the year one thousand seven hundred and eighty-three, to one thousand eight hundred and six: Here, Dr. Davis having no guide, is completely in the dark. He is like a mariner at sea without a compass, or even a star to guide him. He sees nothing, or knows nothing that the profession did during all this period, and he accordingly winds up a chapter of nearly forty pages in the following words: "I have not been able to find a single volume on any branch of medical science or practice, published by an American physician, during the first twenty years after the close of the Revolutionary war." (p. 82) This is a precious confession for the historian of our profession, and we give him full credit for his honesty! What will the reader think, however, of Dr. Davis' knowledge, or his competency for the task of an historian, when he is told that the period mentioned by him abounds in original publications, and indeed is one of the most interesting eras in the literary annals of our profession? Out of a score of publications which might be mentioned, we select a few as samples.

Medical Inquiries and Observations. By Benjamin Rush, M. D. Philadelphia. 1793 to 1798. 5 vols. 8 vo.

An historical Account of the Climate and Diseases of the United States of America. By William Currie, M. D. Philadelphia. 8 vo 1792.

Collections for an Essay towards a Materia Medica of the United States. By Benjamin Smith Barton, M. D.. Commenced in 1798.

Observations on the Causes and Cure of the Remitting Bilious Fevers, &c. By William Currie, M. D. Philadelphia. 1798. 8 vo. pp. 227.

A Treatise on Yellow Fever. By John B. Davidge, A. M., M. D. Baltimore. 1798. 8vo. pp. 65.

Dissertation on Croup. By John Archer. 1798. 8vo. pp. 46.

Letters on Yellow Fever. By Richard Bagley, M. D. New York. 1798. 8vo. pp. 100.

Memoirs on the Yellow Fever in Philadelphia, &c. By William Currie, M. D. Philadelphia. 1798. 8vo. pp. 145.

On the Origin of Pestilential diseases. By Charles Caldwell, M. D. Philadelphia. 1799. 8vo.

A Memoir on Goitre, as it prevails in different parts of North America. By Benjamin S. Barton, M. D. Prof. Philadelphia. 1800. Svo pp. 95.

Memoir on the Analysis of the Black Vomit, ejected in the last stages of the Yellow Fever. By Isaac Catherall, M. D. Philadelphia. 1800. 8vo. pp. 32.

On Kine Pox, &c. By Benjamin Waterhouse, M. D. Boston. 1800. 8vo. pp. 40.

On Hydrophobia. By James Mease, M. D. Philadelphia. 1801. Svo. pp. 62.

Medical and Physical Memoirs. By Charles Caldwell, M. D. Philadelphia. 1801. 8vo. pp. 296.

On Vaccination. By John Redman Coxe, M. D. Philadelphia. 1802. 8vo. pp. 152.

Elements of Botany, illustrated with thirty engravings. By Benjamin S. Barton, M. D. Philadelphia. 1803. 8vo. pp. 552, etc., etc.

These were all strictly *original* in their character, not mere compilations or reprints of foreign books. They related to American subjects, and rose fresh from the medical mind of the country; and yet not one of these appears ever to have met the eye of Dr. Davis!

The third chapter embraces the history of medicine in this country, from 1806 to 1850. The whole of this long chapter (80 pages) relates to the various medical societies established in the United States, and gives nothing but a dry, and we should say tedious detail, in relation to their organization, all of which might advantageously have been despatched in half a dozen pages.

The last chapter is on "the present condition and wants of the profession, and the remedies of those wants." On this chapter we have little to say. It contains nothing but what we have for several years heard iterated and re-iterated from various quarters, until we have become quite tired of it.

In conclusion, we have to say, that if the profession in this country is really in the degraded condition in which it is represented in this work, it will require somebody with more intelligence and ability than Dr. Davis possesses to elevate its character. Dr. Davis may be, and we doubt not is, a well-

meaning man ; but he was never born to be the Solon of our profession. Let him study a little more ; let him get a little more knowledge in relation to the past and present history of our profession, and then let him come forward and correct its defects. At present, we must pronounce his book a perfect *caricature*, and a *libel* upon a profession, which, notwithstanding all its short comings and deficiencies (and of these we are fully sensible), is yet eminently respectable.

We have been forced to these remarks from the necessities of the case, and the remembrance of the use which is made abroad of the imperfect histories of the American profession and its literature, written by incompetent persons. We have seen with what eagerness our brethren across the Atlantic have seized hold of the shameful retrospect of our literature by Dr. Holmes, Chairman of the Committee on Medical Literature for the American Medical Association for 1848, and this, too, notwithstanding the protest we urged in the March No. for 1849 of this Journal, showing the instances repeated and numerous, the inaccuracies and inconsistencies of that "Retrospect"—and we have seen, we continue, the meanness of our calumniators, and are resolved that our approbation shall not be placed upon anything but the truth, *and the whole truth.*"

On the above the New York Medical Gazette comments as follows, viz :

"A Critical Analysis of Dr. Smith's great work on Neuro-ma, and Dr. Davis' *little* work upon Medical Education, &c., are both able and *judicious.*"

On the same, the Western Journal of Medicine and Surgery, published at Louisville Ky., has the following :

"Our confrere of the New York Journal of Medicine gives Dr. Davis a severe castigation for the work dignified with the title of *History of Medicine*. We think the profession generally will coincide with the sentiments of the Reviewer. Dr. Davis' History of Medicine is neither a work of information nor accuracy. Instead of being a history of Medical Institutions, it is a gross caricature of the subject. It proclaims deficiency where none exists, and assails the profession in a style that is neither truthful nor useful. The man who rises from a perusal of Dr. Davis' History, under the impression that he has read the details of American Medical History, will make as great a mistake as he would in supposing that he had read

the history of America, in reading Paulding's History of John Bull and Brother Jonathan."

Finally, the March number of the "Western Medico Chirurgical Journal," published at Keokuk, in the Southeastern part of the State of Iowa, introduces the above comments of the Western Journal to its readers, with the following dignified remarks :

"*Dr. Davis' History of Medicine.* This gentleman seems to have been singularly unfortunate in his efforts to acquire notoriety and fame. Some years ago, as Editor of a small medical pamphlet, published in New York, he sought distinction by advocating some wild eccentric notions of medical education, and by *keeping up a constant abuse and defumation* of the regular medical profession of the United States. Finding his efforts unavailing, *and receiving nothing but contempt* for his labor, he sought and obtained a place in a Medical School at Chicago, Ill., where he has been manufacturing "Doctors" at wholesale during the past two years, and contradicting all his former pretensions, by extending an indiscriminate privilege to every one who chose to enter himself for the degree."

This last quotation is made solely for the purpose of showing our readers, and especially my old friends at the east, with whom I have acted and toiled, through many a pleasant session of the New York State Medical Society, and the American Medical Association, a rare specimen of *fraternal regard for ethical propriety*. Personal abuse and vulgar detraction generally proceed from an empty head, or a bad heart ; two things wholly unworthy the notice of an industrious and upright man. Hence the remarks which follow will be directed exclusively to the Notice of the New York Journal of Medicine, and that founded on it in the Western Journal, as quoted above.

There are three qualities essential to all criticisms worthy of the name. First, the critic must represent fairly and truthfully, the *objects, sentiments, and style* of the work criticised. Second, he must give such an analysis as will convey to his readers a just idea of what the work actually contains. Third,

his own style should be free from a spirit of petulencé or personal detraction. These being rules about the correctness of which there can be no dispute, let us apply them to the above criticism of the New York Journal of Medicine. And first, does the writer fairly and *truthfully* represent the *objects* of the book under review? Does he carefully ascertain from its title and subsequent pages, its general scope and tendency, and then inform his readers correctly in regard to the apparent *intentions* of the author? He says: "Instead of being a fair and impartial history of what has been done in medicine in this country." Again: "The second chapter embraces the *History of Medicine*," &c. And again, "The third chapter embraces the *History of Medicine* in this Country," &c. Thus conveying to the reader, most fully, the idea that the book under review, claims to be a History of Medicine in this country; and actually inducing the Editor of the Western Journal to speak of it as "*the work dignified with the title of History of Medicine.*" It has generally been supposed, that a History of Medicine must consist essentially of a narrative of the chief facts, circumstances, and opinions, connected with the progress of Medical Science and practice.

Hence, we find the Medical Historian, from the days of LeClerc to the present time, tracing the progress of medical opinions or theories, medical and surgical discoveries and improvements, and the names of eminent medical men connected therewith; with little or no reference to the particular laws, societies, or schools of any given country. But neither the title page, preface, nor any single paragraph in the whole volume of the work under review, makes any pretensions to the character of a "*History of Medicine in this country.*" On the contrary, the author in more than one place, expressly disavows any intention of making his work embrace the subjects belonging to such a history. Thus on page 36, he says: "Although a consideration of *medical practice* does not come strictly within the scope of our present work, yet an *occasional* glance

at this, and the character of diseases prevalent at different periods of time, will be both interesting and profitable." And again on page 155, "In the two preceeding chapters we have given a *brief* account of the medical works published, and of the improvements made during each period ; but even a *simple enumeration of these*, during the last forty years, would extend the limits of this work too far, and contribute but *little to its main design*." What then was the object of the author ? Just what his title page, and the heading of each chapter of the work would indicate, viz : to present a history of *Medical Education and Institutions* ; embracing an account of the medical laws, societies, and schools in this country, and their influence on the interests and character of the profession ; an object which stands out in full view on every page of the book. And yet, with the title page directly before him, the reviewer proceeds scarcely more than three lines before he entirely misrepresents that title, and then, on such misrepresentation, founds his most sweeping condemnation of the whole work. In this, he stands fully convicted of neglecting the very first duty of the critic, by which his whole performance is vitiated and shown to be unjust.

Having thus perverted the title and objects of the work, it is not strange that he should declare its *sentiments* "*to be really nothing more than a tirade against quackery, and the various quackish practices which the author supposes to exist in our Medical Colleges.*" An assertion, the truthfulness of which, may be judged by the fact, that scarcely one of the various systems of quackery prevalent at the present time, is so much as named in the book, and on none of its pages is so vile an epithet as "*quackish*," applied to, even the most objectionable *practices* of the medical schools. But this part of my task will be presented more fully under the application of the second rule stated above, viz : that the reviewer should give such an analysis of the work, on the merit of which he assumes to sit in judgment, as will convey to his readers a just idea of

what it actually contains. Does the New York Journal critic do this?" Let a reference to his comments on the second and third chapters of the book answer. In reference to the former, he asserts that the author, "*sees nothing, or knows nothing* that the profession did during all this period, and he accordingly winds up a chapter of near *forty* pages in the following words."

This is the sum and substance of his *critical analysis*, of chapter second; and what is the impression it conveys to the reader? Simply, that I have written near forty pages to arrive at the grand conclusion, that during the first twenty years after the revolutionary war, nothing was done in medicine, not so much as the publication of an original memoir by an American Physician. Sure enough! "what will the reader think," not of my competency or incompetency, but of the fairness and honesty of the reviewer when he turns to the chapter referred to, and finds the greater part of it in strict accordance with the title and objects of the whole work, devoted to an account of the establishment of Medical schools and hospitals, the formation of Medical Societies, the establishment of the first Medical Journals in New York and Philadelphia, and the laws relating to medical education, during the first quarter of a century after the Revolution; while the remaining portion alludes briefly to the medical *writers* and *writings* of that day. Yes, notwithstanding the total darkness in which it was written, the chapter does allude to *writings* and *publications*, and that too in no disparaging terms. Thus after alluding to the names of a Warren, Waterhouse, Bayley, Bard, Miller, Mitchell, Post, Romaine, Middleton, Jones, Rush, Barton, Shippen, Dewees, John Mitchell, Chalmers, Moultrie, and others, as constituting "a bright galaxy on the pages of American Medical History," it asserts that, "Many of these were not only learned, but they were characterized by a bold, free spirit of inquiry, which soon broke through the theoretical dogmas of that day, and did more by *their writings* to overthrow the ab-

surditities of the Boerhaavian school than any equal number of cotemporaries on the other side of the Atlantic." (see pp. 69.) And strange as it may seem, the "Medical Inquiries and Observations" of Dr. Rush, which the reviewer mentions as never *having met my eye*, are not only referred to by name, but whole paragraphs are quoted from them with due credit. But if there were writings and publications during the period embraced in the chapter, what is the meaning of those four lines of "Precious Confession"? The following quotation containing what precedes and follows those lines, will furnish an answer. "The medical writings of this period seem to have been confined almost wholly to the pages of the three medical journals which had been established in New York and Philadelphia, and to here and there a pamphlet, or a paper read before some organized society. Indeed, I have not been able to find a single *volume* on any *branch* of medical science or practice, published by an American physician during the first twenty years after the close of the revolutionary war. And yet, as we have already seen, it was a period in our history which was graced by some of *the noblest and most active minds ever devoted to the cultivation of medical science*. But the art of *mere book making*, which has been brought to such perfection in this our day, was little known to our professional ancestors." Such is the connection in which the "precious confession" stands in the book.

And what is its fair and legitimate meaning? That I had not been able to find a single *memoir*, dissertation, pamphlet, or even *volume*, on special or detached medical topics, published by American physicians, as represented by the reviewer? Certainly not; for the existence of these is not only admitted in the immediately preceeding paragraph, but numbers of them had been alluded to, and some quoted from throughout the chapter. The true meaning which seems to me obvious to the most careless reader, is, that I had been unable to find a volume, published within the period specified, on any

"branch of medical science," i. e., on Physiology, Midwifery, Materia Medica, Practical Medicine, &c., and I verily believe still, that it will puzzle the reviewer himself to find any such volume.

But if the author was thus sitting in total darkness, without "even a star to guide him," the curious reader must certainly be interested in knowing what the "*forty pages*," written under such peculiar circumstances, could relate to. And it was at least cruel, if not unjust, for the critic to entirely withhold such information. His *analysis*, however, of the third chapter is still more laconic. Here it is again: "The whole of this long chapter (50 pages) relates to the various medical societies established in the United States, and gives nothing but a dry, we should say tedious detail, in relation to their organization, all of which might advantageously have been despatched in half a dozen pages." Here, surely, is exhibited a power of condensation without a parallel. A chapter of 50 pages is *critically analysed* in the compass of *four* manuscript lines. But, I must ask again, in all candor, "what will the reader think" of the reviewer's regard for *truthfulness*, when he learns that, instead of having devoted "*the whole*" of this long chapter to "*nothing*" but an account of medical societies; no less than *thirty-three* of the eighty pages contained in it, are occupied with an account of medical colleges, medical laws not relating to societies, and to valuable contributions to medical science and practice; leaving 46, only, devoted to an account of social organizations, 31 of which relate exclusively to the origin, constitution, progress and doings of the American Medical Association? And yet the reviewer makes the unqualified and emphatic assertion to his readers, that "*the whole*" chapter "*gives nothing*" but a dry detail concerning medical societies.

Is it possible, that such wholesale misrepresentations can serve any useful purpose, either at home or abroad? Will

they elevate the character of the profession, or encourage and foster its literature? And will they do so any the more effectually because him who makes them pompously assures us that *his* "approbation shall not be placed upon anything but the *truth*, and the *whole truth*?" Concerning the last chapter, and the general *style* of the work, the reviewer declines to give his readers any information; but as if impatient of the time he had already wasted on so worthless a book, he hastens to announce the final result of his examination as follows, viz :

"In conclusion, we have to say, that if the profession in this country is really in the *degraded* condition in which it is represented in this work, it will require somebody with more intelligence and ability than Dr. Davis possesses to elevate its character.

"At present, we must pronounce his book a perfect *caricature*, and a *libel* upon a profession, which, notwithstanding all its short comings and deficiencies (and of these we are fully sensible), is yet *eminently respectable*." Following in the same strain, the Louisville editor says :—"It proclaims deficiency where none exists, and assails the profession in a style that is neither *truthful* nor *useful*." Here, then, the book is distinctly charged, not only with *assailing* and representing the profession as in a "*degraded*" condition, but with being a "*caricature*" and a "*libel*" upon it. These are grave charges; and when proclaimed in a manner to be read on both sides of the Atlantic, they should be accompanied by some substantial proof of their *truth*; and that, too, even though they affected the character of no one but him who was once the "*young man in the township of Binghampton*." But where is the proof given to the readers of the above journals? Do they quote a paragraph from one of those *libelous* pages, or even a single line of that "*tirade*" against the profession, and thereby enable the reader to judge for himself? Not at all; but they leave the naked editorial, *ipse dixit*, standing out with as much

gravity as though it was not only, like the laws of the Medes and Persians, *unalterable*, but also *indisputable*. Having already shown this authority, however, to be at least *fallible*, I shall hazard an explicit denial of these charges in all their length and breadth, and hold their authors as guilty of most inexcusable injustice until they adduce their proof. The *New York Journal* critic charges the book with representing the profession as in a "*degraded condition*." I ask him, where? Is it in the beginning of the work, where it is asserted thus: "The medical profession in the United States, and, indeed, throughout the civilized world, constitutes an important part of Society; for while, on the one hand, its ranks can boast not only of names of the highest eminence in every department of science and literature, but can claim to be equal with the foremost in every enterprise for extending human knowledge, and ameliorating human suffering, its free access to the homes and firesides of all classes, gives it a moral and social influence of the most potent character. *And in no part of the world is this influence more extensively or happily felt than in this country*, where the absence of all hereditary distinctions and privileged orders, leaves learning and virtue free to assume her own native eminence."

Or is it at the close of the historical part of the work, where the author asserts; that, "notwithstanding the abolishment of all laws regulating the practice of medicine in so large a number of States, and the consequent absence of all legal protection, the profession was, probably, never making more rapid advancement in its education, its science and literature, and its *social position*, than at the *present* time.

And that the profession of no country have made, during the same length of time, more *numerous* or *valuable* additions to our resources for combating disease and alleviating pain than that of our own." Yet, the critic of the *New York Journal* gravely asserts that the profession in this country "is *eminently respectable*;" just as though the work subjected to

his examination denied such *respectability*. An *insinuation* as *unworthy* a candid mind, as many of the reviewer's previous assertions are false. No man entertains a more profound respect for the medical profession, or a warmer attachment to all its legitimate interests, than the author of the book under review. But I trust that no degree of *respect* will ever make him so blind or unfaithful to the cause of truth, as to deny the existence of those errors and defects which have so long marred its education, diminished its usefulness, and retarded all its interests. And much less will he, like the New York critic and his associates, assume the ill-natured position of "*the dog in the manger*," by declaring that he is "*fully sensible*" of all its "*short comings and deficiencies*," and yet, instead of pointing out what they are, and how they may be remedied, spend his time in petulant *snarls* at whoever attempts the task.

It is true that my work on the History of Medical Education, &c., represents the profession as containing many members whose education, both preliminary and medical, is extremely deficient; that its practical standard of preliminary education is too low; that the college terms are altogether too short in proportion to the number and extent of subjects embraced in them; that a large number of the schools are so located as to preclude the possibility of giving their classes the advantages of hospital or bed-side instruction; that the present system of examinations for the degree, is wholly inadequate to test the qualifications of the candidate; that, in many of the States, a large proportion of those who commence practice do so without graduating anywhere; and, finally, that the social organization of the profession is incomplete. These are the *deficiencies* which "*it proclaims*." And will our friend of the *Western Journal* be kind enough to inform us and his readers, which of them *does not exist*? Will he, at the same time, point to the page on which the profession is

assailed in a "style that is neither *truthful* nor *useful*;" or else take back the unfounded assertion?

It was stated in the beginning, as the third essential rule of criticism, that the critic's own style should be free from a spirit of petulance or personal detraction. But the *New York Journal* reviewer will bear the application of this scarcely better than either of the two which preceded it. There is, in much of his phraseology, an air of petulance, bearing, indeed, a near approach to overbearing *insolence*, which is wholly unbecoming a scientific and professional mind. Much as I am accused of *calumniating* the profession, in no part of my writings can words so exceptionable as "*shameful*"—"tirade"—"*libel*," and "*meanness*," be found applied even to the humblest practitioner in America. For the reviewer's kind advice "*to study a little more—to get a little more knowledge*" &c., I am certainly thankful. It is only seventeen short years since I began acting in accordance with this advice, and though, during that time, I have neither shunned the midnight lamp, nor the noon-day sun; neither avoided in my search the flower-decked hill side, the noisome laboratory, nor the warm gushing blood of animals sacrificed to science; yet, *encouraged* by the kind notices of my labor which have just passed in review, I shall certainly double my diligence and renew the pursuit. But so long as my love for the profession remains undiminished, there is one thing I cannot, *will not* do; and that is, to cease urging such measures as I think calculated to elevate its character and extend its usefulness; even though, in so doing, I might chance to gratify the national spleen of some testy critic on the other side of the Atlantic.

Having now shown that my friend of the *New York Journal*, and, of course, his Western coadjutors, have been guilty of transgressing every fair and legitimate rule of criticism, in their notices of my book, I have only to enquire in conclusion, how *such* notices are to improve our medical literature, or, in any way, advance the interests of the profession?

All acknowledge that our system of medical education has defects, both numerous and important. None are so bold as to deny this. Yet, for several years past, there have not been wanting men of influence, holding the responsible and advantageous position of editors, who, instead of candidly pointing out these defects and faithfully suggesting remedies therefor, have never failed to promptly and most authoritatively condemn every attempt of others to do so. This does not result so much from personal enmity or private interest, as from a thoughtless disregard of duty.

No department of journalism is more vitally important to the welfare of the profession than that relating to reviews and notices of books. It is here that the editor or critic sits in judgement on the labors of his brethren, and presumes to decide for his readers what is worthy of their attention and what not. Hence he is bound to bring to his task, at all times, that rigid regard for truth and fairness, that unbending impartiality, and that stern sense of justice, which should ever characterize the position of judge. And no circumstances of personal friendship or petulant disappointment, can excuse him for indiscriminate praise, on the one hand, or wholesale and even overbearing censure on the other. What encouragement has any man to use his time and the little talent which his creator has given him, in efforts to improve the character and extend the usefulness of his profession, if, before his work can reach a dozen readers, the review department of our most influential journals can be used, not only to pervert the plain objects of his labor, but to sweepingly damn his whole performance as "*a caricature and a libel*," without so much as quoting a single page to enable the reader to judge for himself? Will the pitiful acknowledgement that the author is doubtless "*a well-meaning man*," compensate for injustice like this? Or will the fear of furnishing materials to gratify the prejudices of some *foreign* review, excuse the act? Away with such puerile nonsense. If we have confessedly "*short*

comings and deficiencies" in the profession, let us frankly acknowledge them, and then set ourselves at work, like honest and independent men, to devise ways and means for their removal. I have taken the trouble to pen this article, not in self-defence or from personal considerations, but simply for the promotion of truth and justice. For, though I make no pretensions to a stoical indifference to the opinions of my professional brethren, yet I am not conscious that either the desire of praise or the fear of censure, will ever deter me from speaking and writing whatever I deem calculated to advance the interests of my profession or the welfare of mankind.

CHICAGO, March 27, 1850.

ARTICLE III.

Compression of the Abdominal Aorta, in a Corpulent Female, with Uterine Hemorrhage, after Delivery. By IRA E. OATMAN, M. D., of Dundee, Ill.

The practice of compressing the Aorta in uterine hemorrhage I believe, dates no further back, than the time of Baudelocque. It appears strange, that a discovery so simple, and yet so effectual as this, was not made in the days of Harvey. This practice has been adopted and recommended by Chailley, and others. But so far as I have seen, it has only been used in persons of spare, or moderately replete habit. The following case is submitted, to show that it is practicable in corpulent persons, and that it affords means of safety in some cases, in no other way so easily obtained.

On the 19th of November, 1850, I was called early in the morning, to see a lady 26 years of age, in labor with her first child. She was *corpulent*, low in stature, and of the lymphatic, sanguine temperament. The os uteri being little dilated, and the pains inconsiderable, I gave her an anodyne and left her at M. Returning at 4 P. M., I found the pains had been suspended for an hour, but they had returned slightly, and were more frequent. They continued to increase in strength slowly and tardily, the interval being about eight minutes. At 10 $\frac{1}{2}$ P. M., she was delivered of a small male child. The uterus contracted slightly and the placenta came away in ten or fifteen minutes, with an unusual quantity of blood. The uterus did not remain contracted, but became so flaccid, that it could not be felt through the walls of the abdomen.

I depressed the head and shoulders of the patient and gave her ergot and plumb. acet., in doses as large as the stomach would bear. I continued the efforts through the parietes of the abdomen, to excite the uterus to contraction, which only

of the 10th, a menorrhagia, after de-

livery. This also was with a first child, but the lady being of a spare habit, it required but little skill to practice it successfully.

Dundee, March 23, 1851.

ARTICLE IV.

Cases of Puerperal Convulsions. By JOEL E. HENDRICK, M. D., of Auburn, Indiana.

CASE 1. I was called on the morning of the 14th of August 1846, to see Mrs. Hash, aged about 25 years, who was supposed to be in labor with her first child. On my arrival at 9 o'clock A. M., I found her laboring under pretty severe pains, which occurred regularly at intervals of about five minutes. I therefore immediately made an examination per vagina, and found the os uteri rigid and not sufficiently dilated to admit the point of a finger. I learned on inquiry, that the bowels had been well evacuated. I therefore, for the purpose of facilitating the dilation of the os uteri, drew from the uterus about 16 oz. of blood, and afterward administered a full dose of morphine, in consequence of which the pains were diminished in force and frequency, recurring in a moderate degree at intervals of about half an hour, until about 3 o'clock P. M. when they again commenced to increase. On examining the os uteri was now found to be less rigid than formerly, sufficiently dilated to admit the passage of a finger. The gradually increased from this time, and the os uteri dilated, until about 8 o'clock P. M., when she was seized with a very severe convulsion. She was immediately bled to the extent of about 24 oz., but as the convulsions continued to occur, the os uteri being now sufficiently dilated.

occurred slightly, and in about eight minutes, as before delivery. I applied pounded ice over the abdomen.

The os uteri was still dilated, flaccid and occluded with coagula. The pulse was indistinct in the radial artery, the countenance was pale, anxious and ghastly, and the lips retracted. She had intense thirst and indiscrivable debility, with occasional syncope. Fearing that she would die before I could remove the coagula, and use the hand for an internal stimulant to the womb; or use cold astringent injections, I directed my efforts to the abdominal aorta as a dernier resort, notwithstanding the excessive fatness of the patient.

After considerable ineffectual effort, I found by making fearfully hard pressure, with the ends of the fingers, about two inches above the umbilicus, that the pulsations of the aorta could be controlled, this being the only eligible point for the operation. This gave instantaneous relief to all the urgent and fatal symptoms. I continued this pressure during three hours and ten minutes. The womb continued flaccid. Being compelled to change the hands often, sufficient blood would pass down to prevent the open mouths of the uterine vessels from being occluded, with dense coagula. Hence, I thought it unsafe to discontinue the pressure sooner. Although the uterus was little contracted at the end of this time, the hemorrhage did not return. During this period the most perfect quiet was observed, the ice continued, opii, plumb. acet and ergot was given occasionally; and she was often allowed rich chicken tea, which she took with great avidity.

The pulse slowly and gradually returned. By observing quiet and using nutritious drinks, with a little wine, she had no other untoward symptoms. After a few days I gave her small doses of sul. quinia, and ferri ferro-cyan., and acid nitric. She gradually and permanently recovered her usual health. The child did well.

I have had one case since, in which it was necessary to resort to compression of the aorta, in menorrhagia, after de-

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admit the passage of the hand, and the head of the child having not yet entered the superior strait, I concluded to deliver immediately by turning. I therefore, after placing the patient in a proper position, introduced my hand, seized and brought down one foot, and delivered without much delay a living male child. The placenta was soon after detached and expelled, and the convulsions immediately subsided. Both the mother and child lived and did well.

CASE 2. I was called on the evening of the 2d of March, 1851, to see Mrs. Keen, a large plethoric woman aged 27 years. I arrived at 12 o'clock P. M., and found on inquiry, that the patient was supposed to be at about the commencement of the ninth month of her first pregnancy; that for the last 48 hours she had suffered from very intense pain in the head; and that at about 6 o'clock P. M., of the same day, she was seized with a very severe convulsion, which had occurred at intervals of from half an hour to an hour, leaving her during the intervals, entirely insensible.

Her breathing was now stentorous, her head hot, extremities cold, and pulse frequent and feeble. The tongue had been badly lacerated during the convulsions, and was dreadfully swollen. I immediately opened a vein in the arm, but succeeded in obtaining but a very few ounces of blood.

As the convulsions continued to occur, and as I was informed by the women present, that there had been a discharge several hours previous to my arrival supposed to be the liquor amni, and also that no motion of the child had been felt for several days, in consequence of which the patient herself had supposed the child to be dead, I therefore determined, if practicable, to deliver immediately. On examination per vagina, I found the os uteri soft and dilated to about the size of a dollar, and the head of the child presented at the superior strait. I concluded therefore to deliver by turning without further delay. After placing the patient in a proper position, I slowly and cautiously introduced my hand, seized and brought down

one foot, and delivered with a moderate amount of traction, a dead male child. The placenta was separated by the contractions of the uterus, and immediately extracted from the vagina. The delivery was completed at one o'clock on the morning of the 3d, about an hour after my arrival.

The patient remained insensible during the operation of turning, and until her death, which took place at 4 o'clock, three hours after delivery was effected, the convulsions having continued to occur at about the same intervals as before her delivery.

Of the other two cases of puerperal convulsions that have come under my observation, no notes were taken at the time. I will therefore merely state, that in one case the convulsions made their appearance during labor, and after the child had passed the superior strait. The case occurred in the summer of 1844, and the patient, Mrs. Gilbert, was about 35 years of age, and in labor with her fourth child. On the incursion of convulsions, she was bled largely, and although the convulsions continued to occur, she was speedily delivered, without manual assistance, of a living female child. Both the mother and child lived and did well.

The other case occurred in the practice of Dr. K——, in the winter of 1849. I was called to see the patient in consultation with Dr. K., and learned, on inquiry, that she was about 22 years of age, and supposed to be at about the commencement of the seventh month of her first pregnancy; that she had been suddenly seized with convulsions without any premonitory symptoms about twelve hours previous to my arrival; that the convulsions at first occurred about every fifteen minutes, but that after a full bleeding they had diminished in frequency to about one per hour. She was now, and had been from the first attack, entirely insensible.

As the friends were very anxious that she should be immediately delivered, I made an examination per vagina, but found that dilatation of the os uteri had not commenced. We there-

fore directed that a brisk cathartic should be administered, and that after the bowels had been thoroughly evacuated, opiates should be given.

I did not see the patient afterward, but was informed by Dr. K., that after the operation of the cathartic, the convulsions subsided, and that during the next day, labor came on regularly, and she was delivered, without manual assistance, of a dead child. The woman soon recovered.

ARTICLE V.

Report of the Committee on Mortality and Hygiene, made to the Chicago Medical Society April 7th, 1851, and ordered to be published in the N. W. Medical and Surgical Journal.

The members of this Society are aware that there are no official records kept of the mortality of this city, and that therefore, it is extremely difficult to obtain the requisite number of facts upon which to make a proper report upon this subject.

The statistical information herewith presented, gives the number of annual interments for eight years from 1843 to 1850. Also the comparative mortality of adults and children for each month, and the number of deaths from cholera from 1846 to 1850, inclusive.

From 1843 to 1848, the annual mortality of Chicago ranged from 1 in 34.61 to 1 in 64.78, making the average proportion of deaths during that period less than that of most other cities of the United States. In 1849 the mortality was 1 in 18.84, and in 1850 1 in 21.45, making the deaths during these two cholera seasons in the proportions, nearly, of two to one more than at any previous period.

By an examination of the table showing the comparative mortality at different seasons, it will be seen that during the winter and spring months the fatality is greatest amongst adults; whilst in the summer and fall there are proportionally more deaths of children, excepting during the cholera seasons, in which the mortality of adults is in excess during the whole year.

W. B. HERRICK, *Chairman.*

Table No. I. Population, deaths and rate of mortality in Chicago from 1846 to 1850, inclusive.

Year.	Populat'n.	Mortal'y fr m cholera	Mort'y fr m var's dis'es	Of these adults	Of these children	Annual mort'y	Mortal'y l in ev'y	Mortality per' tage
1846	14,169		327	154	173	327	43.33	2.30
1847	16,859		487	270	217	487	34.61	2.88
1848	19,724		514	228	286	514	38.37	2.60
1849	23,047	681	542	787	436	1223	18.84	5.30
1850	28,620	463	871	743	591	1334	21.45	4.66
	114,507					4175	27.67	3.65

Table No. II. Comparative mortality of Children and Adults in Chicago, at different seasons, from 1846 to 1850, inclusive.

Months.	1846.		1847.		1848.		1849.		1850.		Pro'tion.		Tot.
	Adults	Ch'ren	A	C	A	C	A	C	A	C	A	C	
January,	10	13	12	13	12	12	20	24	40	15	94	77	171
February,	6	9	11	8	14	12	21	17	30	73	76	149	
March,	8	9	16	12	17	13	20	8	24	20	85	62	147
April,	5	5	12	8	13	16	29	13	20	22	79	64	143
May,	11	10	14	10	23	19	60	24	20	22	128	85	213
June,	4	8	17	8	10	21	85	36	32	27	148	100	248
July,	11	18	22	21	16	27	223	84	169	86	441	236	677
August,	27	40	33	56	17	40	158	115	262	212	497	463	960
Sept.,	16	23	37	42	25	35	86	53	76	75	240	228	468
October,	32	28	32	23	35	25	46	31	38	32	183	139	322
Nov.,	11	15	39	10	29	50	22	19	24	18	125	112	237
Dec.,	13	8	15	6	17	16	17	12	17	32	79	74	153

Table. No. III. Population, deaths and rate of mortality in Chicago for eight years from 1843 to 1850, inclusive.

Year.	Population.	Annual mortality.	Mortality, one in every	Percentage of mortality.
1843	7,580	117	64.78	1.54
1844	10,170	288	38.78	2.83
1845	12,088	290	41.68	2.39
1846	14,169	327	43.33	2.30
1748	16,859	487	34.61	2.88
1848	19,724	514	38.37	2.60
1849	23,047	1,223	18.84	5.30
1850	28,620	1,334	21.45	4.66

ARTICLE VI.

Observations on the use of the Obstetrical Extractor. By JNO. EVANS, M. D., Prof. of Obstetrics, &c., in Rush Medical College.

It is now over twelve months since I commenced the use of this instrument, and just one year since I gave an account of the invention to the public, during which time I have applied it twelve times; twice in cases which occurred in my own practice, and in ten cases where I had been called in attendance with other practitioners. Five of these cases were reported in the transactions of the American Medical Association for 1850; to which I will now add an account of its use in the cases that have occurred subsequently to that report:

CASE 1st. An Irish woman in the care of a midwife had been in labor twenty-four hours with her first child, when I was called. I found the head engaged in the superior strait; but not descended so far as to press upon the pericranium. It was a left occipito-anterior presentation. The uterine contractions were very strong, but, for the three hours that I attended, did not the least advance the child. I placed the patient in the usual position for applying the forceps, and pro-

ceeded to apply the extractor after the manner already described. This was done with such entire facility that I at once became satisfied of the utility of the invention ; my only fear having been in reference to difficulties in its application. The labor was speedily and happily terminated without apparently increasing the patient's suffering over that that is natural, and with entire safety to both mother and child.

CASE 2d. Miss —— had been in labor with her first child twenty hours, in care of a root doctor, when I was called in counsel with Prof. Herrick, in the case. We found the os uteri well dilated, the contractions forcible, and the head engaged in the superior strait, with the occiput forward and to the left. No advancement had been made for several hours, when it was determined to apply the extractor. The obstruction arose from the large size of the child. The application was made as before, and delivery as speedily and safely effected.

CASE 3d. Mrs. B. had been in labor for ten hours ; the pains were beginning to grow weaker, and the advancement of the child, which presented naturally, had ceased for two hours. It was simply a case of tedious labor from inefficient uterine contractions, and I determined to apply the extractor, if possible, without the patient's knowledge of it. Of this intention I apprised her mother, who furnished me the means of preparing the instrument in an adjoining room. As the patient lay in the usual position for delivery, on the left side, I applied the extractor without causing so much pain as to lead her to suspect that I was using an instrument ; though thinking I made an unusual examination, she inquired if anything was wrong. The delivery was effected speedily, and with safety to both mother and child. In this case, the band slipped over the chin of the child, after which I put the network below the band to prevent the like accident from occurring in future.

CASE 4th. An Irish woman who had been in labor twelve hours, in care of Prof. N. S. Davis, was much exhausted from long continued and violent expulsive efforts. The head was engaged in the brim of the pelvis, but had not descended into the concavity of the sacrum, and had made no advancement for several hours.

In attempting to apply the extractor, I found some difficulty in approximating the handles closely enough to receive the slide, but found that it was occasioned by the band not having

been carried far enough up, as was proved by the instrument's coming away upon the application of force. The reason it was not carried high enough at first was a deception as to the actual position of the head, occasioned by great tumefaction of the scalp. A subsequent trial succeeded perfectly, and the delivery was accomplished without farther difficulty and with entire safety to both mother and child.

CASE 5th. Mrs. A. had been in labor with her fourth child fifteen hours, in the care of Dr. J. S. King, of Chicago. I found the head entirely above the superior strait of the pelvis. Dr. K. observed that, although the soft parts seemed to be well relaxed and the contractions strong, there was no tendency during the pains to advancement of the head. The pains had been strong, without altering the position of the child, for about eight hours; but the intervals between pains were now longer, and the contractions less forcible. The os uteri was dilated to two inches in diameter; the occiput presented nothing upon the symphysis pubis. The Extractor was applied without any difficulty, and the delivery effected safely to mother and child within fifteen minutes from the time the application was commenced. The head of the child scarcely presented a trace of the instrument in any case in which it has been used. The only mark it has yet made has been slight redness and temporary depression of the skin, where the band and straps were applied.

In this case, the mother did well, but the child died in about twelve hours of morbus ceruleus.

CASE 6th. Mrs. ———, in July last, had been in labor thirty-six hours, first under the care of a homœopathist, and subsequently of Dr. P. McGirr, of Chicago, when I was called. The uterine contractions were very strong and recurred quite frequently, but there had been no advancement of the child for several hours. The head presented in the first position, the left occipito-anterior of the vertex. It had descended so as to bring the forehead into the sacral excavation. It receded during the uterine relaxations, and came to the same position again during the pains. The homœopath had assured them twelve hours previously that the child would be born with a few more pains; but the attendants assured us

that she had been in equally hard labor for the whole of this period. The woman was much exhausted, and I applied the extractor with but little difficulty ; but upon making traction upon the *straps** the *band* gave way, owing to a slight rent that had been made on a former occasion not having been repaired. I was obliged to deliver with the forceps. The mother and child both did well.

CASE 7th. Mrs. W——, an Irish woman, in care of Dr. Simple, of Chicago, had been three days in labor with her first child. Presentation, the left occipito-anterior of the vertex ; head descended as in the preceding case ; os tincæ quite fully dilated, but no advancement by the uterine contractions for several hours, notwithstanding they were of the most violent character. The first attempt to apply the extractor failed, because I did not carry the band far enough into the uterus, to place it around the face, and it slipped off. A second attempt was completely successful, and the child was speedily and safely delivered. Mother and child both did well.

CASE 8th. Mrs. ———, whose pelvis is contracted, and whom I had, in consultation with Prof. Davis, delivered with the forceps, of a still-born child a year previously, was taken in labor at the full term, in November last. When I arrived the child's head had descended into the pelvic excavation, and was so firmly impacted that it was with much difficulty that I passed the fingers of the extractor around it. I observed to Prof. Davis, in whose practice the case occurred, that one having less interest in the extractor might have failed of its application. When applied, it required much force for a considerable time, as it had done on the previous occasion with the forceps, to effect delivery. The child was still born. This is the only case where the child has been born dead in which the extractor has been used, excepting one where it was known to be dead before its application.

*For description of the extractor see N. W. Med. & Surg. Jour. for May, 1850, or Transactions of American Medical Association for 1850.

CASE 9th. Mrs. L—— had been in labor twelve hours, in care of Prof. Herrick, February 4th, when I was called. Right occipito-posterior presentation of the vertex, and notwithstanding there had been violent labor for several hours there was no advancement of the child. We each made an unsuccessful effort to bring down the vertex into the concavity of the sacrum with the vectis. I then applied the extractor, introducing it by the side of the head of the child and carrying one finger over its face, under the arch of the pubes, and found it impossible to get it further. I therefore passed the other around to meet it at that point where the slide was placed upon the handles; delivery was then effected without further difficulty. A contusion of one of the child's cheeks, made by the finger of the extractor, was the only disagreeable incident in the use of the instrument. Mother and child both did well.

CASE 10th. Mrs. W—— in labor, in care of Mrs. Kelly, midwife, for twelve hours; occipito-anterior presentation of the vertex; was, from long continued labor, much exhausted. The pains were quite inefficient and no advancement had been made for several hours. In presence of Mr. Wright, a student, I applied the extractor, and speedily and safely delivered. Mother and child both did well.

CASE 11th. March 12. Mrs. S——, aged thirty-three, with her first child, had been in labor twenty-four hours. The presentation occipito-anterior of the vertex; os tincæ soft, dilated to the size of a dollar and inclined to the promontory of the sacrum; violent contractions for several hours, with strong bearing down efforts failed to urge the head into the superior straight of the pelvis. I determined to apply the extractor but found it difficult to pass a finger of the instrument between the occiput of the child and the pubes of the mother. I took the instrument away, readjusted it, and depressing the handles, without difficulty passed it at once over the occiput and carried its fingers in opposite directions until they met on the

face, in the concavity of the sacrum, where they were fixed by the slide upon the handles. With strong extractive force applied during each contraction of the uterus, the child advanced but slowly. But delivery was effected in about one hour and a half, the patient lying in bed on the left side during the time. The cord was around the neck and the child asphyxiated. After some time it was resuscitated, and both the mother and child did well.

CASE 12th. Mrs. T——, in care of Dr. S., of Chicago, had been in labor twelve hours when I was called. On examination, I found the umbilical cord cold and pulseless, and one hand of the child lying in the vagina. The vertex presented at the superior straight, the head resting in the right iliac fossa. I passed the extractor up, between the descending arm and head of the child, separated the handles and carried the fingers of the instrument in opposite directions until they met on the opposite side of the head, and fixed them by the slide without difficulty. The head was then readily drawn down and delivery soon effected. The woman did well. Had the extractor been applied in this case before the death of the child, I have but little doubt it might have been saved.

In the application of the instrument, I have found that much depends upon a proper lubrication of the silk band and straps. Oil does not answer well, as it renders the silk harsh. A mucillage made by soaking a piece of fine soap in warm water answers better than anything I have yet tried.

That the extractor is superior to the forceps, as a means of applying extractive force in delivery, I am now thoroughly convinced. Its greatest superiority is in the facility and safety with which it can be applied at the superior straight, though I think it fully equal to them under other circumstances.

The only objection that has thus far been urged against the extractor is, that the silk band and straps become saturated with the secretions of the parts, and would be liable to carry any contagious virus from one patient to another, and hence,

in time of the prevalence of puerperal fever, might be very mischievous. But a thorough washing with soap and warm water might cleanse it as perfectly as any other fabric ; and the probabilities are, that its use would not be called for in the hands of one practitioner more than once during an epidemic of the kind referred to. The suggestion, however, which was made in the *American Journal of Medical Sciences* is entirely worthy of attention, and should put those on their guard who use it, and induce them to observe the utmost care and cleanliness. In case of an epidemic contagion, it might be well to remove the old band and straps after using them and substitute new ones.

ARTICLE VII.

Case of supposed Violence or Poisoning—Post Mortem Examination. By E. C. BANKS, M. D., of Charlestown, Illinois.

I was called on, a few days since, to make, with Dr. T——, a post mortem examination in a case of death, supposed to be by injury or poisoning, of a woman aged about fifty years, and who had been dead ten and buried eight days. The circumstances are briefly these, as near as I could gather from all parties : The woman was frequently seized with a paroxysm of supposed cholic after straining much on lifting anything ; rupture was discovered and the fact communicated to her husband and a few neighbor women several years since ; but when the spells came on her they were always the result of violent straining, and would only cease after she herself adjusted the tumor by pressing her fingers thereon, and in that way reduce the hernia. Her husband being an ignorant fellow, and more like a brute than a civilized man, never

consulted any one concerning her situation, and she never wore a truss in her life. He says (and the information communicated by him and these women, though exceedingly vague and unsatisfactory, is, nevertheless, all we possess up to the *post mortem*), the rupture was only occasionally of any inconvenience, and only became painful after the lifting and straining above alluded to. The following testimony, with the above, was elicited from her husband and the women :

Her husband stated, after being arrested, that his wife had been doing something that brought on one of these paroxysms, and that she grew so bad he wished and proposed going after some of the neighboring women, but she would not consent, saying that she would soon be better. She remained a few hours in this condition (time not stated), and, evening having drawn on, he and son went out to do the chores, and left her alone. When they came in he discovered great alteration in her symptoms, and on going to the bed found her speechless ; went for neighboring women himself, and when he returned she was dead, and the women say cold and stiff, except her neck, which they thought wore marks of violence, finger prints, and they thought her neck broken simply because it was limber. They dressed her and saw no other marks of violence, and hence rumor soon spread that violence inflicted by her husband caused her death. Still she was buried and remained interred eight days, when the rumor had become so strong that a Coroner's inquest was called and the body disinterred.

One reason for supposing he killed her, was the disagreeable life they were known to have lead ; he frequently beating her and driving her out at mid-night, in a cold storm, when she would be compelled to take refuge in some neighbor's house. This, with the sudden death and supposed marks of violence, all contributed to confirm in the minds of his neighbors the belief of foul usage causing her death. On inspecting the brain no marks of injury appeared ; the scalp sound,

neck not dislocated, no marks of violence on the throat, trachea healthy as far as possible to determine, lungs and heart sound, veins no more than usually filled with blood, liver and stomach sound, no scum in the chest or abdomen. But on inspecting the bowels, that portion of the colon coming off first from the cœcum and a few inches therefrom, was found to be immovable to any slight traction, and on making more powerful traction, the intestine, highly diseased and engorged, slipped from the sack formed in the groin by the passage of the intestine through the inguinal ring, and the enlargement of the sack was considerable. The inguinal ring was enlarged to the size of a man's thumb, and the sack would have nearly contained an ordinary fist. The intestine was perfectly impacked with fecal matter, and strangulation was the result. The entire colon gave some evidence of disease even at that date; and that portion contained within the sack was highly infected and soft, while the internal lining of the sack was also greatly diseased. The soft and impacked condition of the intestine, and the condition of the sack and entire colon, led us to determine that the woman came to her death from strangulated hernia, in the absence of any other visible cause to account for her death.

ARTICLE VIII

Puerperal Convulsions :

Dr. R. Hull of Cottage Grove, Wis., says he has recently treated a case of puerperal convulsions, which commenced two hours after delivery, by the application of fomentations to the abdomen made of smart weed, (*polygnum hydro-piperoides.*) and applied as hot as could be borne. Although the case was not relieved by bleeding, enemata, and revulsives to the extremities, which had been tried for forty eight hours, there occurred but one slight convulsion after the fomentations were applied as above described.

Part 2—Reviews and Notices of New Works.

ARTICLE I.

Review of Chemistry for Students, adapted to the courses as taught in the principal Medical Schools of the United States. By JOHN G. MURPHY, M. D.; pp. 328, 12 mo.; Lindsay & Blackiston, Philadelphia, 1851, (from the publishers.)

This is an exceedingly well arranged and convenient little book. It gives the most important facts and principles of chemistry in a clear and very concise manner; so as to subserve the object for which it is designed most admirably. It is not intended for a text book, but is to refresh the memory of those who have passed through a thorough course of the study of the science. The principle objection to such books, is, that they are liable to take the place of the more elaborate works, and thus make superficial scholars of students; but it is very clear that one must first have a very good knowledge of chemistry, or this book will not be well enough understood to make it interesting—and hence, it will soon be laid aside. But to one who has been well taught previously, it will be a means of bringing very rapidly and clearly in review before his mind all of the more important points in his course of study, in which case it may be exceedingly useful. It is a fact well understood, that chemistry requires frequent refreshing in the mind to prevent its loss, even by those who, when students, had made the greatest proficiency in it, and the systematic works upon the subject require more time for their perusal than can in many instances, be devoted to it, consistently with the active duties of the practitioner, in which cases we should think the little book before us admirably adapted to supply their place.

It is printed in the publishers usual good style, and illustrated by a large number of diagrams.

ARTICLE II.

Fisk Fund Prize Desertation of the Rhode Island Medical Society.

Lessons from the History of Medical Delusions, By WORTHINGTON HOOKER, M. D., author of "Physician and Patient."

"*Falax non raro experientia, si Rationis ductû fuerit destituta. Qua propter nisi mutuam sibi lucem communicent, æquam erroris causam præbebunt.*"—*Baglivi*. New York, Baker & Scribner, 1850; pp. 105, 12 mo., (from A. H. & C. Burley.)

Just at this time, this little work is exceedingly opportune. Perhaps it might have been as much needed at any other point of time in medical history, but we appreciate the present more forcibly as a time when the people are disposed to run after the medical lo! heres and lo! theres, than any other period of our professional career.

Although we think Homœopathy is beginning to wane in public estimation, and Hydropathy not likely to prevail to any thing like the same extent, there will undoubtedly be some other form of delusion to take their places when they have passed away. In fact it is a long time before any popular delusion will entirely die away. There are yet a few steam doctors left, of the host that a few years ago threatened to take the faith of the entire public to themselves. We are right glad that a moderate, philosophical, and fair exposition of the foundations of medical delusions has been made in the pleasing and elegant style of our author.

Most of the errors leading to these delusions are the result of losing sight of the power of nature to cure, or in other words, in attributing to pretended remedies what legitimately belongs to the *vis medicatrix natura*.

Our author illustrates this position by many examples, a few of which we cannot refrain from giving in his own language, though the facts may be familiar to many of our readers.

Bishop Berkley's tar-water-drinking delusion is related, with Luther's assertion, that :

"Experience has proved the toad to be endowed with valuable qualities. If you run a stick through *three* toads, and after having dried them in the sun apply them to any pestilent tumor they draw out all the poison, and the malady will disappear."

Our author continues :

"One of the most successful of medical delusions was broached by a physician in Connecticut. I refer to Perkins' Tractors. The Tractors were two pieces of metal, one appearing to be steel, and the other brass, about three inches in length and tapering to a point. Their efficacy, it was supposed by the inventor, and by the many learned men who endeavored to account on philosophical principles for the effects, which they were almost universally believed to produce, depended upon the developement of galvanic fluid.

Dr. Perkins' discovery was promulgated in 1796. In two years the Tractors were introduced into England, and some other European countries. In eight years Perkinism, as it was called, was so triumphant, that a Perkinian institution was formed in London, with a large proportion of its members from among the ranks of the titled, the learned, and the revered. The Tractors, which readily sold for five shillings a pair,* were under the auspices of this institution applied most benevolently to the sick and suffering poor. This society had its public dinners in honor of the grand discovery, and poetry even was laid under extensive contribution to sound its praises and diffuse its benefits. Thus runs the strain of one of the Perkinian poets :

"See pointed metals blest with power to appease
The ruthless rage of merciless disease,
O'er the frail part a subtle fluid pour,
Drenched with invisible galvanic shower,
Till the arthritic staff and crutch forego,
And leap exulting like the bounding roe."

The Perkinian committee published from time to time their reports of the cures, which as early as 1802 were stated to number five thousand. Some of the certificates, many of which were from the highest sources, were of the most decisive and enthusiastic character. A divine, a professor in one

*The Tractors were manufactured in a small village, near the author's place of residence, for *one shilling* a pair.

of our New England Colleges, thus wrote : " I have used the Tractors with success in several other cases in my own family, and although, like Naaman the Syrian, I cannot tell why the waters of Jordan should be better than Abana and Pharpar, rivers of Damascus ; yet since experience has proved them to be so, no reasoning can change my opinion." Volumes of these certificates were published in succession, and Perkinism was proclaimed as the grand medical discovery of the age.

And yet, in seven years from the founding of the Perkinian institution, so changeable is the popular medical mind, the Tractors were spoken of as being almost forgotten ; and at the present time it is almost impossible to find a pair of them as relics of a past folly, and if the offer should be made of the old price of five guineas, it would bring but a few of them to light.

Now the same error was committed by the believers in the Tractors which was made by Bishop Berkley in regard to the Tar Water. They forgot that the curative power of nature is always at work removing disease, and that imagination sometimes renders essential assistance. They thought that all who got well after the application of the Tractors were cured by the Tractors, as Berkley did that all who got well after swallowing Tar Water were cured by Tar Water.

" There were unbelievers in the days of Perkins, as there were in the days of Bishop Berkeley ; and they were wicked enough to try experiments on their patients with Tractors made of wood, and painted so as to resemble the five guinea Tractors. They were impudently pretended to produce the same effects, and five of the patients of these mischievous doctors returned public thanks in church for their cures. In one of these cases of cure, effected by the wooden Tractors, the patient, Miss Ann Hill, after a little time exclaimed, ' Bless me, why, who could have thought it, that them little things could pull the pain from one. Well, to be sure, the longer one lives, the more one sees ; ah, dear ! ' And if Miss Ann Hill had lived in this year of grace, 1850, she would have had her pain drawn out by the hands of a professor of animal magnetism, or psychology, as it is now called, instead of painted wooden Tractors."

The author makes the following application of his reasoning to the present popular delusion of infinitesimal medication.

“The error which I have been illustrating is carried to an extreme by the Homœopathist. He attributes palpable results to doses of medicine which are so small that they cannot produce any perceptible effect except by miracle. Can it be seriously believed that a decillionth of a grain of charcoal, or oyster shell, or common salts will produce manifest effects in the system? And yet this is what Homœopathy asserts.

“The experience upon which such assertions are based is acquired in a very singular way. A person takes one of these little doses, of oyster shell for example, the effects of which are said to last fifty days. All the symptoms which he has during that time are to be put down, if a record be kept of his case, as the effects of that oyster shell. Among the notes thus made will perhaps be the following: After dinner, disposition to sleep; the patient winks; tremor of the hands when occupied with fine, small work; the upper lip becomes cracked; phlegm is hawked out, chiefly in the morning; there is a voluptuous tickling on the sole of the foot after scratching; a little indolence, aversion to talk; joylessness and disinclination to labor; attacks of anxiety, especially at evening; inflammation and swelling of one-half of the nose; an itching, tickling sensation at the *outer* edge of the *palm* of the *left* hand, which obliges the person to scratch; crooking of the fingers *when gaping*, and cramp in them at *midnight*; cool perspiration of the hands, frequently with a *cold point of the nose*; boring, grubbing tooth-ache, increased by mental exertion; thirst, with loathing of *water and beer*; anxious hesitation and discomfortateness with *reflections on death*; twitching in the cartilage of the ear, and pricking *behind* the ears; creeping in the *upper* lip and in the *point* of the nose; on awaking the *right* arm over the head; awakes with perspiration and heat at *three o'clock* in the morning; walks with a self-sufficient importance; when stepping out walking a sensation on the *back* of the foot as if the boot were too tight; the little toe aches as if hard pressed; burning near a *golden* ring on the *fore* finger; drawing pain on the head when brushing the hair *backwards*; tightness in the *small* toe of the *left* foot, &c.

“This is no caricature of the Homœopathic mode of recording cases. These are actual quotations from a standard work on Homœopathy, a closely printed octavo volume of 600 pages, purporting to be an arranged collection of the observations of Homœopathic physicians, in regard to the operation of substances upon the system, both in health and disease.

The most wild and fertile imagination, set loose from reason, to roam where it listeth, could not collect a more incongruous and ridiculous farrago, than is to be found in Jarh's Manual, under the guise of scientific observations of the effects of remedies. With the Homœopathist, the infinitesimal dose is everything; all else, even the universe with all its agencies great and small, is nothing. His favorite antecedent, though Allopaths may call it tiny, neutralizes, or swallows up, all other antecedents, by its magic 'dynamic power.'

"You observe that the infinitesimal doses are proved to cure disease, precisely as Perkin's Tractors, the Weapon Ointment, and the Tar Water of Berkeley, were once proved to do it. The reasoning is this: A patient took a decillionth of a grain of oyster-shell three or four times a day; he got well; *therefore* the oyster-shell cured him."

But we cannot pursue the analysis of the work any further. It shows up the errors of the regular profession, as well as the gross follies of the quacks and the simpler folly of the people in following their delusions, in a clear and interesting manner; so that if the work could be generally read, the professional man would be better able to explain the devices of the special system men to gain the public confidence, while the public might be better prepared to judge who were the true philosophers by having their philosophy expounded.

Some of our contemporaries are disheartened with efforts to correct the errors and follies of pretenders and the public in reference to medical matters, because they say quackery cannot be got rid of, and hence they speak of such works as the one before us, as being well enough, but not likely to do much good. Now our doctrine is, that in the great contest between truth and error every successful effort on the part of truth is so much of clear gain, notwithstanding we may never be able to eradicate all the error in the world.

We therefore most cordially recommend the little work before us to the perusal of all enquirers after medical truth, confident that it will have a salutary influence wherever read in leading to a better estimation of the profession of medicine.

ARTICLE III.

Eighth Annual Report of the Managers of the State Lunatic Asylum of the State of New York, made to the Legislature Feb. 27th 1851.

Report of the Pennsylvania Hospital for the Insane, for the year 1850. By THOMAS S. KIRKBRIDE, M. D., Physician to the Institution.

Annual Report of the Commissioners and Medical Superintendent of the Indiana Hospital for the Insane.

Report of the Joint Committee of the Legislature of Indiana appointed to investigate certain charges against Officers of the Hospital for the Insane.

The New York State Lunatic Asylum situated at Utica, is the largest institution of the kind in America, though much smaller than several European institutions of the kind. During the past year it has had under treatment 816 patients, of whom 171 were discharged cured, 8 much improved, 49 improved, 108 unimproved, 51 died, and 429 remained in the Asylum at the date of the report. Since the Institution was opened in 1843 it had received up to Nov. 20th 1850, 2743 patients, of whom 1188 had been discharged cured, 468 improved, 328 unimproved and 320 had died. The Institution up to the time of his death was under the management of the distinguished and talented Amariah Brigham, M. D. Since the eighth of December 1849, the Institution has been under the superintendence of N. D. Benedict, M. D., who has from that time, in the language of the Managers "devoted his best energies, and with very satisfactory success, to the management and treatment of the patients committed to his charge."

The part of the Report before us, prepared by Dr. Benedict is full of interest, and shows a familiarity with the subject of insanity, and the management of such institutions that could only be the result of industry and devotion to the subject.

The Pennsylvania Hospital for the Insane is a richly endowed institution, having become so by the rise of property in Philadelphia, around the old Pine Street Institution, of which it is a branch, and by the liberal donations of its friends.

We are rejoiced by the prosperity that has attended it since it has been in operation, now ten years. This success has in a great measure been owing to the good judgment, zeal and devoted attention of Dr. Kirkbridge, under whose care it has been during the whole period. It has generally been amongst the foremost institutions of the kind, to adopt the many improvements that have been introduced in the arrangement of hospitals, and the management of the insane, and now has the most elegantly fitted apartments to be found in our country. Persons used to style in living need style in the treatment of their Mental derangements and hence it is an excellent plan to have a few places in the country that can afford such accommodations. Those seeking such care may be assured of every comfort consistent with insanity in this establishment, as well as the attentions of one of the very best men in our profession as their physician.

During the past year there have been in the Hospital 428 patients, of whom 106 were discharged cured, 20 much improved, 41 improved, 21 stationary, and 27 died ; leaving 213 in the Institution at the date of the report, the close of the year.

Having spent several of the best years of our life aiding in getting up, planning and building the Indiana Hospital for the Insane, it is natural that we should take a deep interest in every

thing that pertains to its welfare. And as a large number of our readers are directly interested in it, as citizens of the State under whose controul it is managed, and by whose liberality it has been founded and sustained, we shall take occasion to refer to it more at length hereafter, by giving a history of its origin, progress and present condition, with such suggestions as may seem appropriate, in reference to it. We therefore lay this, and the report of the joint committee of the Legislature in reference to charges made against some of its officers aside, for the present, promising to refer to them again.

ARTICLE IV.

Proceedings of the Medical Association of the State of Alabama, begun and held in the city of Mobile, Dec. 10-14, 1850.
With an Appendix, pp. 156. octavo.

Dr. Lopez president called the meeting to order, when the usual business of such bodies was transacted.

The following is a list of the Officers elected for the ensuing year.

DR. CHAS. F. LAVENDER, of Selma President.

- " WM. O. BALDWIN, of Montgomery, 1st Vice President;
- " L. H. ANDERSON, Sumter, 2d Vice President;
- " WM. B. CRAWFORD, Mobile, 3d Vice President;
- " A. LOPEZ, Mobile, Corresponding Secretary;
- " GEO. A. KETCHUM, Mobile, 1st Recording Secretary;
- " JNO. P. BARNES, Mobile 2d Recording Secretary;
- " H. M. JACKSON, Montgomery, Treasurer;
- " W. H. ANDERSON, Mobile, Orator;
- " CHAS. F. PERCIVAL, Church Hill Alternate.

Amongst many interesting resolutions adopted we observe the following:

Dr. Lopez offered the following resolutions:

Resolved, That a committee of — be appointed, to draft a memorial, to be laid before the Legislature of the State, at

its next regular session, setting forth the necessity, and advantages, which recommend the establishment of an Insane Asylum, and that said committee be requested to attend at Montgomery, for the purpose of aiding Miss Dix, in her efforts to that end.

Resolved, That, in pursuance of this object, the members of this Association, generally, be requested to ascertain, to every possible extent, the number, age, sex, color, and condition of Lunatics and Idiots within their respective counties, and obtain like information from those counties unrepresented, and forward the same to the chairman of the committee, on or before the 1st day of July next.

Prof. S. D. Gross, now of New York was elected an honorary member. A list of delegates was appointed to attend the American Medical Association.

The interesting reports, for want of room, cannot receive notice now. Take it alltogether the report shows an exceedingly good state of feeling and interest in the profession in Alabama.

Part 3.—Selections.

ARTICLE I.

HOT WATER IN SPRAINS.—By SAMUEL JACKSON, M. D., formerly of Northumberland.

The immediate application of cold water in sprains is strongly recommended by M. Baudens, in a paper quoted at p. 235 of the preceding No. of this Journal. As my practice, at least for the last thirty-four years, has been the very opposite of this, and has yet led to equally desirable results, I beg leave to relate it on the present favorable occasion.

I was riding past the house of one of my patients thirty-four years ago and heard the screams of anguish: a woman had just sprained her ankle and was then suffering intensely. I ordered the foot to be put into water as hot as she could bear it and to be retained there until I should return—hot water to be added as the first became cool. In about an hour, I found that the pain had diminished almost from the very first minute, and that it was then entirely gone. She was put to bed with the foot greatly elevated, and after some hours, though there was no pain, towels dipped in cold water were freely applied and continued for several days. She was then perfectly well nor did she ever again suffer from that sprain.

Another strong case within my clear recollection is the following: A man sprained his ankle and suffered such severity of pain as to make him cry out most lustily. I was present in a few minutes and put his foot into hot water, immediately bleeding him largely from the arm as he sat in his chair bathing his foot. The pain became rapidly milder and I went into the next room to drink some tea. Looking over my shoulder after a few minutes, I saw his friends employed in fanning him and sprinkling his face with cold water. I ran to him, when to my horror, he was, as to human eyes, a mere corpse. I instantly tilted his chair, laying him flat on his back and ordered them to elevate his

legs. Cold sprinkling and spirits of ammonia, now most fortunately in my pocket, were most diligently used, but it was an alarming time before he was restored. He was now put to bed entirely free from pain and the next day he pursued his journey in the stage without any inconvenience, having a flannel bandage applied.

This man told me he had no idiosyncrasy with respect to loosing blood; he was large, vigorous and healthy; hence the bleeding did not produce this alarming crisis. It was in a great measure the flaccidity of body and mind effected by a sudden transition from extreme suffering to perfect ease; though it must be apparent that the bleeding and bathing worked together so powerfully as to require more careful watching in any future case.

I once suffered a violent contusion of my elbow followed by intense pain: the arm was immediately put into a tub of hot water when it soon became entirely easy, requiring nothing further except rest. I have treated many other sprains and contusions in this way and I do not recollect a single case wherein the hot water failed of giving surprising relief.

I had been prepared for trying this method by reflections on the great comfort of warm bathing in many cases of conjunctivitis, before any considerable *error loci* had yet been formed; and on the fact, that in general relaxation of the system, there is less pain from parturition or any other violence.

How long that state of the part which is benefited by hot water, may generally continue after the accident, can hardly be defined. I have no recollection of using this remedy after a lapse of two hours, but I cannot be prepared of course to define the limits. If there has been time for inflammation to form, heat is inadmissible on my principle. Sometimes a tumour will instantly rise, but this being without inflammation, there can be no objection to the hot water.

It is very desirable to ascertain the best methods of refrigeration. M. Baudens keeps the foot night and day in a tub of cold water—a very inappropriate and inconvenient practice, if I am not greatly mistaken, for it prevents the proper position of the limb, which ought to be much elevated and evenly so from the acetabulum to the foot. Towels dipped in ice water and spread over the limb and bladders of snow or of pounded ice so placed that their weight may be sup-

ported by the pillows, and very conveniently applied. Ice or snow is particularly useful through the night when nurses and patients are sleepy and heat is sure to accumulate. A certain medium however must be observed with respect to the degree of cold, for it may easily be overdone unless the heat be great.

Suppose then a violent sprain has been relieved of all pain by hot water, let no one look upon the danger as past. The patient ought to be placed in bed with his foot greatly elevated, and after a few hours, cold ought to be applied even if the part is entirely easy. Inflammation may form, let us then prevent what every one knows is hard to cure in such parts. I have often seen lead water used and B. Bell has confidence in this and natural mineral waters, but truly I cannot believe they have any superiority over the pure fluid.

Low diet from the very first must be used in every case and purging too when the system will bear it; but if the patient is robust, he should lose blood from the arm. So much for the prevention of inflammation. I should not say a word about its cure had not M. Baudens advanced something bordering on novelty. He seems to have a horror of leeches because they may attract blood to the part. Now if the general arterial action has been lowered and the leg kept elevated, this horror need not be entertained. This we think would be the decision of a great majority of the profession in the present case. If I were called to a sprained ankle already in a state of severe inflammation I should certainly, after bleeding from the arm if necessary, apply an abundance of leeches and follow them up by cold, the limb being greatly elevated. B. Bell says, "No remedies I have ever employed answer so well as local bleeding:" and in the same page he further says, "When the injury has been severe we are obliged to apply leeches once and again. They require indeed to be repeated from time to time as long as any serious degree of pain continues."

After an indefinite time when all tendency to active spreading inflammation has been subdued and the little that is left is very feeble or confined to a small space, a very active large blister will generally absorb and carry it forthwith out of the body, but this is a perilous experiment and may do much harm if it do not fulfil our intention of extinguishing at once the whole disease, or of subduing it so far as to prevent reaction and thus to favor the operation of a second

blistering. Whenever it has been determined to use this remedy, the part ought to be rubbed for fifteen minutes with *decoct. canthar. ex terebinth.* and an active plaster applied, so as to draw an effectual blister in the shortest time possible. The quick drawing of the blister is a point of the first importance in cases wherein you hope to absorb and carry off the whole disease. A slow blister is worse than none; it is sure to irritate and increase the disease as sinapisms are known to do in similar cases. You are taken with pleurisy or peritonitis—some physicians would apply mustard with the hope of discussing a disease that is yet mild; but *væ vobis*, you must loose more blood on account of the mustard and resort to a blister in the end. The best dressing by far for the first few days, is plantain or cabbage leaves; but if the blister promise to run freely and not inflame, it may be soon dressed with mezereon or savin cerete, and if a copious discharge of pus be obtained, the disease will rapidly pass away. I can never forget the delighted countenance and applauding language of an old physician to whom I showed in my first year's practice, an ankle in this very condition. He had never known this use of savin, but from that day he used it freely and praised it highly. I had learned it from Crowther's work on white swellings.

Beware of warm poultices in the dressing of these blisters, for, as M. Baudens rightly says, "they favor in place of opposing the afflux of fluids to the part," and speaking of the long application of warm cataplasms, he says, "The long maceration the joint has been submitted to, deprives it of its elasticity, gives rise to a pasty engorgement and predisposes to the formation of white swelling." If it is determined not to use savin, the blister should be healed by the mildest dressings, so that another may soon be drawn; thus the blistering may be conducted without any injurious irritation and made to absorb gradually and to carry off gently all the remaining inflammation. Dr. Rush used to talk and lecture much on his blistering point, and truly no idea or language can be more appropriate. The inflammation must be brought down to a low grade of action, or to a small periphery, so that a suitable blister will extinguish it at once, or so greatly diminish it that one or more subsequent blisters may be drawn with safety and success.

Of so much importance is it to guard against the irritation of blisters, that when I have applied them in the evening for

critical diseases admitting of no delay, I have risen from my bed to bleed the patient if necessary at the time the plaster might begin to stimulate. When practicing in Northumberland, I have thus gone from one mile to four between midnight and morning to subdue the possible increase of fever either by the lancet or by additional doses of tartar emetic. By this means the evils of blistering may often be prevented; but as Hippocrates says, "the opportunity is fleeting:" if you wait till morning the pulse may be higher than it was in the evening and of course the blister has done much harm and no good. Sir John Pringle, in that early dawn of therapeutics, was better acquainted with this principle than many later authors in more enlightened times. See Part III. ch. ii. In the treatment of pleurisy when the bleeder was not present, he put on a blister and "was satisfied if the vein was opened before the flies had time to stimulate." I must observe however that his principle of practice was more commendable than the practice itself. More mischief can hardly be done by any remedy than by the drawing of a blister before the inflammation has been reduced to the blistering point. In Sir John's practice, the pain may have been scattered, but the inflammatory state remained and bleedings were then required which ought to have preceded the blister. It is very possible that when bleeding is inadmissible, nauseating doses of tart. emet. might be used to relax the system under the stimulation of a blister.

We have already entered our caveat against warm poultices in the dressing of blisters for sprains, and have approved M. Baudens' doctrine with respect to them; and lest any one should retort that our hot water may have the same bad effect, we must remind him, that we explode warmth after inflammation is formed. You may bathe a healthy limb in hot water for twenty-four hours and no engorgement will follow. I have bathed a great many sprained joints in the hottest water that could be borne without any of this evil. It is pain and inflammation that induce this engorgement, and these being both prevented by the hot bathing, this dreaded evil is prevented of course. But let this engorgement accrue and it will be greatly increased by much heat in any form. Yet there may be old cases in which hot water or steam may appear to revivify the torpid parts and render them sensible to curative means. But suppose you are called to an old case of this leuco-phlegmatic torpidity, is there a better

remedy than frequent blistering that discharges freely? B. Bell recommends the pouring of warm bath or Buxton water on these engorged and torpid joints, but there is far more vivacity in the operation of cantharides, and the discharge not only carries off the evil stimulation, but it empties the vessels and promotes absorption.

Salivation is a last resort in certain protracted cases of sprains. I was called to a case wherein the metatarsal ligaments had been sprained twelve months before and the patient was now unable to walk on that limb. Rest, elevation of the leg, low diet, frequent cupping, and blistering were steadily pursued for nine months with much advantage; but there remained a painful state of the parts that prevented all use of them, and this without any evident swelling. Having reflected on the all-searching influence of mercury when parts supplied with infinitesimal vessels are inflamed as the iris, ligaments, and serous membranes, I determined to try its effects on the inflamed metatarsus. Calomel with blue pill was given and no sooner was the mouth sore than my patient felt with joy that his foot was greatly relieved. The change for the better was instantaneous and permanent. He was severely salivated but without any detriment; and I am glad to say that mercury in my hands has not since that time thirty-one years ago, transcended its just operation in a single case, and that I consider it an invaluable remedy not difficult to manage. It will cure chronic rheumatism, why not therefore a chronic sprain? But as I am not writing a treatise on sprains, I shall now return to my subject.

In nearly all cases of external violence which do not implicate any of the viscera, the immediate use of hot water is, as I sincerely believe, the best as it is the surest cure and preventive of pain. If you are about to have a tooth extracted, hold hot water in your mouth both before and after the operation: if you must have a felon lanced, hold the hand in hot water for a long time both before and after the cutting. My first case of what is vulgarly called "inverted toe nail" occurred to me after the patient had thoroughly relaxed the part by warm poulticing for many days, and I did not proceed to the operation of splitting the nail and eradicating the offending portion, till he had bathed his foot a long time in hot water. I had been taught in Dorsey's Surgery that it was a most painful operation, and I was therefore surprised, notwithstanding my hopes from the relaxation, to find the

young man making very little complaint. I have several times performed this operation and owing as I believe to the hot bathing, I have not found it severe in a single case.

Now if I am not mistaken some reader will here exclaim, that even in inflammation, warm water agrees with some persons and cold with others. This fact however, I learned when a student from S. Cooper's prize essay on "Diseases of the Joints:" but however true this may be, I have not found a single case of bruise or strain in which hot water, when used in time, was not a great present comfort and permanent benefit.

When can I use the limb, is the continued cry of the patient and the continual anxiety of the harassed doctor. Some men have been known to walk off the gout, but this is a very dangerous experiment. I once sprained my metatarsus, but as the pain was not intolerable, I rode abroad without any application; on my return, I went to bed with the remittent fever and the pain was soon gone and forgotten. When I came to use the limb after two weeks, it became painful; but as the bilious fever prevailed greatly, I had no time to think of self, and nothing was done unless some rubbing with liniment. When the cold weather set in, the pain subsided gradually; but the warm weather of spring brought it back with distressing debility in the part. Thus going in the fall and coming in the summer, this infirmity continued to trouble me for four years. My limb was weak and painful every summer but not so bad as to send me to bed for a cure. I have seen many people triumph over the poor doctor by limping over the earth in great pain till nature cured the disease; but such wayward spirits always pay dearly for their folly, and they are sometimes finally brought to a bed of repentance.—*Amer. Jour. Med. Sci.*

ARTICLE II.

CHINIODINE IN INTERMITTENT FEVER.—By LEWIS SLUSER, M. D., of Canal Fulton, Ohio.

Interesting as may be the history of rare and anomalous cases, they afford less of that which is of practical utility, than contributions upon diseases of more common occurrence.

Actuated by this belief, I am induced to make public my experience in the use of Chiniodine in the treatment of intermittent fever. The present high price of the alkaloid quinine, and the probability of its being maintained, render it an object of no small pecuniary consideration to country practitioners, who are compelled to dispense their own medicines, to obtain some reliable substitute less expensive.

Malarious fever is the endemic of this locality, and among its subjects, are a full quota of cases denominated charitable. The same remark will apply to many other sections of our country. For the last several years, impelled by motives of economy, as well as by a desire of professional improvement, I have *experimented* not a little with reputed anti-periodics—officinal and non-officinal. It would be an endless task, were I to attempt enumerating them. It may be proper, however, here to mention, inasmuch as chloroform is at present going the rounds as a succedaneum, that soon after its introduction into practice, I was led, from a knowledge of its power over the nervous system, to give it a trial; which I did in repeated cases, in different forms, and in varied combination; but found it entirely inefficacious—unworthy of the least confidence.

In the treatment of simple, uncomplicated intermittent, of a tertian or quartan type, I have as yet found no substitute equal to chiniodine. In quotidian cases, I have not succeeded so well; from the circumstance, as I believe, that the short intermissions will not allow sufficient time to bring the system under its influence. Where I could induce the patient to continue its exhibition through several intermissions, the disease invariably succumbed.

By medical statistics, or numerical analysis as it is termed by some writers, we are enabled to determine satisfactorily the value of a certain remedy in the cure of a specific disease. Success in a few isolated cases, is not sufficient to establish the merits or demerits of any article. A non-observance of this fact has often tended to bring reproach upon the writer, and consign his vaunted remedy to unmerited oblivion.

I have kept an accurate record of forty-two cases of intermittent, treated exclusively with chiniodine. These were of persons residing near at hand, coming almost daily under my observation, and the results of which I could note with confidence. Itinerant cases, I did not record. Of these forty-two cases, twenty-six were quartans; the balance, sixteen, were

tertians. In all, when given in the mode and manner I shall hereafter direct, it was checked, without the recurrence of another paroxysm. Of the quartans, two relapsed on the eighth, and three upon the twenty-eighth day. Of the tertians, one relapsed upon the ninth, and two upon the twenty-first day. All of these were again checked by the same mode of treatment, and with the residue, have thus far escaped a relapse. According to this table, the proportion of relapse case ; is less than one-fifth of the whole number ; a result which I think will compare favorably with the quinine treatment.

Upon a principle in therapeutics, that a combination of several articles of like properties will increase the aggregate effects, I have for the last year been prescribing chinoidine in accordance with the following formula :—

R. Chiniodine ʒj.
Tart. Acid,
Cinch. Rub.,
Cascaril. pulv.,
Val. Rad. pulv., *aa.* ʒij.
Ex. Quas.,
Ex. Gentianæ, *aa.* ʒss.
Mucil. Acaciæ, q.s.

M. Divide into 480 pills.

Of these, I usually prescribe to an adult, sixteen, two to be taken every three hours, commencing immediately after the subsidence of the last paroxysm, and continued during the day time until all are taken. To guard against relapse, I order six on the twelfth and thirteenth day after, counting from the last paroxysm; and the same quantity repeated on the twenty-sixth and twenty-seventh day.

The preparation of chinoidine that I have employed, was that manufactured by Powers & Weightman, Philadelphia.

The combination with Comp. Ex. Colocynth recommended by them in a circular accompanying the article, I have found objectionable, as being apt to disturb the bowels. I have used it successfully in conjunction with piperine, but the combination given above I have found from experience to be the more efficacious in meeting the indications.

In conclusion, I would remark, that I consider chinidine entitled to more consideration than it has yet received from the profession, as a successful and comparatively cheap remedy in the treatment of intermittent fever.—*Med. Exam.*

ARTICLE III.

DEATHS OF DISTINGUISHED PHYSICIANS.—The year 1850 has been fatal beyond all measure to medical science in France. Nearly all that remained to us illustrious in every department of the science has passed away. In chemistry Gay Lussac; in surgery, Marjorlin and Blandin; in comparative anatomy, de Blainville; in medicine, Fouquier, Royer-Collard, Capuron, Prus, and a host of others. To this long catalogue is to be added the name of M. Leuret, physician to the hospital of Bicetre. M. Leuret was one of those persons, now so rare, who pursue their career without noise or ostentation; therefore, notwithstanding the extent and variety of his knowledge, the remarkable clearness of his judgment, and his personal value, it was long before M. Leuret enjoyed that degree of public estimation to which his peculiar talents so justly entitled him. He wanted ambition, and was consequently inactive. Even his great work on the Comparative Anatomy of the Nervous system still remains unfinished.

The peculiar doctrines of M. Leuret on the moral treatment of insanity are well known. They met with obstinate opposition in France, and were the principal cause of the little public success which their professor obtained. On the other hand, M. Leuret was one of the most effective opponents of phrenology, and his profound knowledge of the comparative anatomy of the brain enabled him to overthrow many a brilliant theory, which seemed inexpugnable when applied to man alone.

NAEGELE, the celebrated Professor of Midwifery of Hiedelberg, and **LANGENBECH**, the no less distinguished Professor of Anatomy and Surgery at Gottingen are dead. They died on the same day; Naegele at the age of 72, Langenbech at 75. Naegele was born at Dusseldorf and studied at Strasbourg and Paris. Langenbech, at his own expense, erected and endowed at Gottingen a Surgical Hospital and Anatomical Theatre.—*N. Y. Register.*

ARTICLE IV.

ACCIDENTAL EMPLOYMENT OF CHLOROFORM IN ERYSIPELAS.—By GEO. J. SACSHE, M. D., Columbus, O. Translated from the German by JOHN KERN.

On the 31st December, 1850, I was called to visit Mrs. K., aged about 45, who had been laboring under vesicular Erysipelas of the face for three days. There was considerable febrile excitement, constipation, tongue brown and dry, and skin having a yellowish tinge.

Prescribed Cal. gr. xii., followed by an infusion of Sal Epsom and Senna. After free action of the bowels, she was placed under gentle diaphoretics, and acidulated drinks. The disease spread somewhat upon the face, but by the influence of this treatment, at the end of ten days my patient was convalescent.

On the 25th of January, I was again summoned to see Mrs. K., who, the day before, had had another attack of Erysipelas upon the left side of the face. The inflamed surface was covered by a fine vesicular eruption. I administered an emetic of Tartar and Ipecac., which produced free vomiting and catharsis. In the afternoon the disease was found to be spreading—the face was much swollen. I resolved at once to use the colodion, which I had brought with me for that purpose. I removed the cork from what I supposed to be my colodion bottle, and by dipping the extremity of a feather into the fluid, I applied it to the inflamed part, but to my surprise, it did not form a dry, shining, transparent pellicle, or coating, upon the surface—but in place of it, a whitish sediment, formed similar to that observed after the application of Goulard's extract. The redness, however began rapidly to subside. For the first time, my olfactories detected my mistake—I was using chloroform instead of colodion. This startled me not a little, but observing the happy effect of my new remedy, I continued its application.

On the following morning I found my patient much better. The inflammation had nearly subsided, except at certain points, to which she desired me to re-apply this "blessed water." On the third morning all redness had entirely disappeared.

Five days after this, I had another case of Erysipelas of the face in the person of a woman of 32 years of age. The

redness of the inflamed surface was not as deep as in the first case. The chloroform was applied more freely, but twice only, on two consecutive days. The effect was quite as salutary as in the case of Mrs. K.

I would not propose the external application of chloroform as a sovereign remedy in Erysipelas, by any means. Neither am I certain that it would be generally useful. My experience thus far in its employment would not lead to such extravagant conclusions. Its happy effect in the above instances, or the favorable change which followed its use, encourage me to repeat its application in cases which may hereafter fall under my observation; and also induces me, in this manner, to call the attention of the profession to it. The suggestion that the history of this accidental employment of chloroform should be published, was made to me by a highly esteemed professional friend, whose wishes I feel bound to respect. If this article proves equally as efficacious as nitrate of silver, or colodion; on account of unpleasant local effects which these produce, it would be preferable to them, as it leaves no discoloration or tenacious coating on the part.

It is not to be expected that any local agent, however salutary, will obviate the necessity for constitutional remedies. In cases where there are disordered digestion, bilious and vascular derangements, and excitement, internal remedies appropriate to the existing indications, must not be omitted.—*Ohio Med. and Surg. Journal*, March, 1851.

ARTICLE V.

ERUPTIONS OF THE SKIN DURING PREGNANCY.—Read at the Quarterly Meeting of the Rhode Island Medical Society, by Dr. HIRAM ALLEN, and communicated by the Publishing Committee.

Two cases of disease of the skin have recently occurred in my practice, which were different from any cases which I now recollect of having witnessed before. The first case was a woman who was between eight and nine months advanced in pregnancy, and had been quite well during the whole time until a few days before I saw her. She com-

plained of an excessive itching of the skin over the system, attended with a fine eruption, differing in appearance from ordinary eruptions. The elevations of the surface were fine, distinct, of a light brownish color. I prescribed some mild applications to allay the itchings, but all were unavailing until her delivery, which revealed and removed the cause of her external disease. She was confined, as she supposed, a week before her time had expired, and was delivered of a stillborn child. From its appearance I should think the child had been dead three weeks; decomposition had begun to take place, and the skin had sloughed off in some places. From the symptoms, the mother supposed the child must have died about three weeks previous to its birth. The woman soon recovered, and all the eruption rapidly disappeared. The disease of the surface I suppose was the effect of nature's depurating process to rid the system of the intra-uterine poison, which had been absorbed.

I have had a similar case since. The woman had an itching and eruption of the skin, which appeared in many respects similar to the other case; but upon inquiry I found she felt active motion of the child. I concluded her child must be living, but the eruption indicated the reverse. At the time of birth I officiated. The woman had twins. One appeared to be well and healthy—the other, from its decomposed state, had probably been dead for several weeks.—*Boston Med. and Surg. Jour.*

ARTICLE VI.

MORPHINE IN STRANGULATED HERNIA.—To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—I have recently met with several cases of strangulated hernia, where reduction was effected by morphine so speedily, with so little pain, and so satisfactorily to the patient, that I am induced to give your readers some brief notes of them from my note book.

In 1841, I published in the New York Medical Gazette several cases of the same nature, and since that time more than three-fourths of the cases of strangulated hernia to which I have been called, were reduced by giving large doses of

morphine. An old gentleman, aged 88, in December last was shovelling snow from the side-walk, and a hernia with which he had been affected many years became strangulated. He had been in the habit of returning it without difficulty, but this time he failed, and sent for a physician, who tried all the ordinary means, such as cold applied to the part, nauseating doses of tart. ant., the taxis, &c. &c. Several hours were spent in this manner, but without avail, and I was requested to see him. I found him with a large inguinal hernia, which was tense, tender, and very hard. In addition he had hydrocele of both sides, which were of large size. A large dose of morphine was at once given him, with orders to repeat in an hour if perfect ease was not obtained. Two hours afterwards I saw him. His hips had been elevated according to orders; and I found him in a profound sleep, from which it was difficult to arouse him, yet his hernial tumor had gone back spontaneously, and the use of a truss has since kept it in its proper place.

A young man, 20 years of age, while lifting a heavy weight, felt something give way, and a tumor formed at the external orifice of the abdominal ring. It was very painful, tender and hard. A physician who saw him made use of the taxis, and persevered a long time, but to no purpose. He then gave him a dose of morphine, and advised to send for me. The anodyne which had been given procured some relief, but the taxis was of no avail, the parts being so tender and painful, that it was thought best to desist. A full dose of morphine was now administered, and directions given to elevate his legs and hips. He became easy in an hour and went to sleep. When he awoke, his troubles had ceased; the hernia had spontaneously returned.

Other cases might be recited, which I have seen, or that have occurred in the practice of my medical friends; and so striking has been the benefit of this practice, that, when called early, before inflammation and adhesions of the sac have taken place, I feel an almost certain confidence in its efficacy. The tedious routine of practice recommended by the books, I look upon as worse than useless, in comparison to this. Chloroform is a valuable agent, no doubt; but I have tried it only in two instances, and then with very little hope, as opium had been freely used, and adhesions to the sac were found so firm and extensive, that after the operation of cutting down and separating them, it was found difficult to

return the bowel and omentum into the abdomen. I believe that there is scarcely a case of recent strangulation which may not be speedily and easily reduced by a judicious use of large doses of morphine. I have performed but one operation for strangulated hernia, where this practice had been pursued, and failed, except where extensive adhesions existed to account for the failure. That case was one where a large quantity of fæces had been enclosed in the strangulated portion, and also a knot of worms, rendering its return a matter of great difficulty, after I had performed the operation. There is nothing lost if you fail in this course. It gives the patient great ease and comfort, frequently stops the obstinate vomiting, and fits and prepares him for the operation, if that is finally to be performed. The *modus operandi* of the anodyne practice is clearly obvious. When a protrusion of the bowel takes place, pain and irritation at once supervene. Spasm is the next effect, and the opening is now much diminished. Inflammation next follows. Effusion of lymph, and a glueing of the protruded intestine or omentum, or both, to the sac, quickly follows, and prevents its return by taxis or by spontaneous effort. Morphine allays spasm, relaxes the muscles, and allows its return; or it prevents the recurrence of effusion by allaying irritation, and by that means prevents inflammation developing itself, as it would rapidly do were anodynes not exhibited. The practice is not novel, as many writers on surgery recommend opium in the catalogue of remedies for strangulated hernia. But no one, to my knowledge, has made it a prominent agent, but only as one of secondary importance. I view it as more efficient than all other remedies together, and as preferable because of the several indications it fulfils.

A. B. SHIPMAN.

Syracuse, N. Y., March 22, 1851.

—*Ibid.*

ARTICLE VII.

THE CATOPTRIC TEST FOR CATARACT.—A paper read before the Medical Society of Virginia, by JAMES BOLTON, M.D.

The diagnosis of cataract is often extremely puzzling. In amaurosis, an opacity is often observed behind the pupil, which resembles an opaque crystalline lens.

When we consider the extreme value of the affected organ, and the totally diverse methods of treatment applicable to the two diseases thus liable to be confounded, we are prepared to place a high estimate upon any means which may enable us to form an accurate diagnosis.

If the opacity be produced by inflammation of the vitreous humor and retina, the puncture and laceration of these tissues, required by the operation for cataract, would probably increase the existing inflammation, and render the case hopeless.

When the anterior surface of the lens is opaque, owing to loss of transparency of the anterior surface of its capsule, or of its substance, or of both combined, the diagnosis is comparatively easy.

There are three principal points which distinguish the opacity from an affection of the vitreous humor. 1st, Its position. It appears nearly in contact with the iris at its pupillary margin. 2d, Its form being convex. 3d, It does not disappear on taking an oblique view of it. Opacity of the vitreous humor is more deeply seated; its form is concave; and it can be seen only by a direct front view.

When the posterior surface of the lenticular capsule has lost its transparency, the opacity corresponds, both in form and position, with opacity of the vitreous humor; and the resemblance will be still more perplexing if the cataract be in the nascent state.

In such cases, the highly philosophical, delicate and accurate test of Sanson, called also the Catoptric Test, is of inestimable value.

The following is a description of it:

If a clear flame of a candle be held before a healthy eye, there will be seen upon the surface of the cornea, a bright, well-defined image of the flame, erect, and very much diminished in size. On looking deeply into the eye, through the pupil, there will be seen a faint, bluish image, with an outline not well defined, erect, and larger than the first. Between these two may be seen a third image, bright like the first, very clearly defined, much smaller than the other two, and inverted. There are then two erect images, and an inverted one between them. On moving the candle across the eye, the erect images will be observed to follow it, while the inverted one moves in the opposite direction. The outer one traverses the entire cornea, and the other two pass no farther than the margin of the pupil.

These phenomena are explained by the fact, that when a ray of light penetrates a healthy eye, it encounters three reflecting surfaces : first, the convex cornea ; second, the convex anterior portion of the lenticular capsule ; third, the concave posterior portion of the same membrane. The two first and second reflect upright images ; the third, being a concave mirror, reflects an inverted one, which falls between the other two, in consequence of that being the position of its focus.

These images furnish us with very important indications.

Obliteration of all three images indicates opacity of the cornea, without giving any information as to the condition of the interior structure of the eye. Obliteration of the inverted image only, indicates opacity of the posterior surface of the lens, with transparency of its anterior surface, and of the cornea. Obliteration of the posterior erect image indicates opacity of the anterior surface of the lens, and must necessarily be accompanied by obliteration of the inverted one.

The most important of these images is the inverted one. If that can be made out distinctly, there is no cataract ; for the posterior surface of the lens must be clear, in order to reflect the rays of light, and the body and anterior surface of the lens must be clear, in order to transmit these rays.

In amaurosis, therefore, all three images are visible ; in cataract, when fully formed, only one, the corneal image can be seen.

But this method of diagnosis is available for the detection of not only matured cataract ; but such is its mathematical precision, that the least departure from a healthy condition of these reflecting surfaces is invariably indicated by a corresponding departure from the normal appearance of the images which they present. It not only detects the existence of cataract, but indicates its state of progression from incipency to maturity.

In the whole range of medical science, I know of no method of detecting disease more beautifully illustrative of physical science, and none which may be relied on with more implicit confidence.

The following case, although unfortunate in its termination, exemplifies these remarks in an interesting manner :

J. F., bookbinder, about 50 years of age, intemperate, has been blind in the left eye for several years, during which it has been subject to attacks of inflammation.

There is sufficient vision to distinguish night from day.

Behind the pupil, and very deeply situated is an opacity of a brownish muddy color. Its form is indistinct. The sight of the other eye is defective, but all the images are visible.

Diagnosis.—Opacity of the posterior part of the capsule of the right eye, with probably some degree of amaurosis, which already exists in the left eye.

Operation.—Anæsthesia was produced by chloroform. An incision was made in the superior margin of the cornea, through which the lens was extracted. On the posterior surface of the capsule was an opacity, darker at its centre and shaded off to an undefined edge. The diagnosis was therefore accurately confirmed. The patient was confined to bed, cold water was applied locally, and a strictly antiphlogistic regimen enforced. On the fourth day the patient accidentally used the eye for a moment, and distinctly saw some small object. In a day or two more the eye was suddenly attacked by violent inflammation and pain, which were relieved by active antiphlogistic measures, but the eye became hopelessly amaurotic.—*Stethoscope.*

ARTICLE VIII.

ON THE LOCAL APPLICATION OF CHLOROFORM IN SCIATICA, ETC.—By J. H. J. Hook, M.D., St. Matthews, S. C.

Messrs. Editors:—Having noticed in the November number of this Journal, that Chloroform has been applied locally by Prof. Bouisson, for the relief or cure of Orchitis, I will give you the result of my limited experience with the article applied locally for some painful diseases, which, by the by, may be a very common mode of using it, for aught I know. However, the first account of its local application that I recollect to have seen, was in Wood's Quarterly Retrospect for April, 1849, taken from the London Medical Gazette. And now for the first case in which I applied it as a local remedy:

“On the 21st of August, 1849, I was summoned to see a gentleman, fifty years of age, suffering from an exquisite pain in the hip joint, which I concluded was sciatica, as I had treated him for the same painful affection several times during the past five years, though it did not always attack the hip; some-

times attacking the loins, lumbago, and at other times the knee. During these attacks the pulse would be very slightly excited. The general health was good. He had suffered severely in his youth from white swelling, and is lame from a permanent injury of the knee joint, caused by that disease. The treatment pursued for forty-eight hours before resorting to the Chloroform, consisted in the application of various counter-irritants, locally, (among them Granville's lotion,) cupping, etc., which usually relieved him. I would then have had recourse to constitutional treatment for the relief of the pain, but I knew how averse he was to every thing of an anodyne nature, and that it would be impossible to induce him to take any. Failing thus to relieve him by the usual means, I determined to try Chloroform locally.

On the morning of the 23d, I applied it over the sacrum and loins, by saturating a piece of flannel with it, four by six inches, folded four times, and confining it to the part with a large towel as I had nothing more suitable at hand. In a few minutes, the patient cried out from pain, excited by the Chloroform, and asked what in the name of heaven I had put on him. I replied to him to be quiet for a while, and that I hoped he would soon be better. In five minutes after these words were uttered, he said that he would be perfectly happy if I could make him feel always as he did at that time; and in ten minutes he was asleep, to the great joy of myself and his family, who had been kept up the two preceding nights, in fruitless efforts to relieve him. I must confess here that as this was my first essay with this agent, I watched him with a great deal of anxiety during his nap, which lasted only thirty minutes. In one hour from the first application the pain began to return, and I applied it the second time with the same happy effect; this nap being much longer than the first. It was applied twice more during the same day by members of the family, on the return of pain, and at night I found him in a great measure relieved; so much so, that no further attendance was required. He was able to attend to his business in a few days, and has had no return of it since, either in the knee, hip, or loins.

"I have used it latterly in two other cases, one of neuralgia in the face, the other a painful affection in the left side of a maiden lady, about thirty-five years of age, whose general health is good, with the exception of this pain. There is no excitement in the system at the time the pain appears most

violent. She has been repeatedly blistered, cupped, etc., without much benefit. The Chloroform in these cases procures almost immediate relief."—*Charleston Med. Jour.*

ARTICLE IX.

PARTIAL QUALITATIVE ANALYSIS OF THE TOMATO, (*Lycopersicum Esculentum*—*Solanum Lycopersicum*.)—By JNO. T. PLUMMER, M.D., of Richmond, Va.

I have long wondered why the acid of a fruit so extensively used as the Tomato, should not have heretofore been determined. My earliest supposition was that the character of the acid had been ascertained, but that the course of my reading had not brought the analysis into my view. But years have passed, and I have not yet met with the slightest allusion to the quality of the acid, until to-day, in turning over the pages of the Transactions of the American Medical Association, I perceive that Dr. Porcher reports that this "fruit contains a *peculiar* acid." I have italicised the word "*peculiar*," because it implies, that whoever attempted the analysis must have failed to determine the true character of the acid; for, so far from being *peculiar* to the Tomato, it is common to very many acid fruits.

It may be that the reporter did not wish to imply that a chemical analysis had been made; but that, selecting his adjective rather carelessly, he merely intended to signify that the fruit contained an acid—an agreeable acid, or an unknown acid. Be this as it may, it appears that the Association gave, on this occasion, no additional information on the subject. The fact that the hundreds of intelligent physicians who composed the Association, allowed the statement to pass without note or comment, is presumptive evidence that the character of the tomato acid was not known to them. And if not known to them, to whom was it likely to be known?

Assuming, then, that no examination of the acid in question has been made public, I proceed to give the result of my own researches into the subject.

Every attentive person must have perceived, that the agreeable flavor of the Tomato is due to the semi-transparent mass that occupies and often fills the seed cavities, and envelopes

the seed. In this translucent pulp, the acid is to be found. The parenchymatous portion of the fruit does indeed contain acid enough to redden litmus, but not enough to be perceptible to the taste.

The yellow Tomato was the variety upon which I operated.

1. The glair of the ripened fruit was subjected to pressure in a clean muslin cloth, and the acid juice obtained was then boiled in a Berlin evaporating dish, to coagulate the albumen present. Of this there was a considerable quantity, but it was easily separable by heat—the acid present no doubt facilitating the process.

2. The liquor was then filtered through paper, limpid and colorless. Tested with litmus paper, it proved to be strongly acid. This, indeed, was obvious to the taste.

3. This acid liquor was neutralized with ammonia. Both this alkali and potash gave to the liquor a wine-red color, which was discharged by an addition of the tomato juice, or other acid.

4. To the neutralized liquor (3) was added chloride of lime. This dissipated the wine-red color, but produced no precipitate. Ebullition in a test-tube, however, for a few moments, yielded a white precipitate. This experiment indicated the absence of oxalic, malic, tartaric and paratartaric acids, and the presence of citric acid.

5. The white precipitate (4) was soluble in chloride of ammonium. This solution boiled, again yielded a white precipitate. This reaction with sal-ammoniac afforded another evidence of the absence of paratartaric (racemic) acid.

6. The ebullition of 4 was continued until no more precipitate fell. To the decanted liquor alcohol was added, but the liquid remained clear. This furnished additional evidence of the absence of malic acid.

7. The acid juice (2) was neutralized with lime water. No precipitate appeared. On boiling, flocculi were produced, and these were redissolved on cooling. This reaction indicates citric acid, to the exclusion of almost every other organic acid.

8. The acid juice (2) was treated with acetate of lead. A very copious, heavy, white precipitate instantly fell. This precipitate was readily soluble in citrate of ammonia; thus again denoting the presence of citric acid.

9. To the filtered, neutralized juice, was added sesquichloride of iron. The liquid assumed a yellowish-green color,

and remained perfectly transparent. The absence of any reaction in this case excludes the idea of tannic, gallic, acetic and benzoic acids being present.

Thus, then, I determined the certain existence of citric acid in the tomato, and the absence of all other acids. Other reagents were employed besides those named; but, as they all produced corroborative evidence of the presence of citric acid, to the exclusion of others, I have not thought it necessary to add their indications to the foregoing.

It now became an interesting question, whether the acid discovered was wholly free, or in combination with a base. To resolve this problem, I added to the acid juice (2) a solution of tartaric acid in excess, and strongly agitated the mixture. A granular precipitate was formed, characteristic of potash. Tartrate of lime would have re-dissolved in the excess of tartaric present, and would also have disappeared in sal-ammoniac solution, which did not occur with the present precipitate.

Citrate of Potash, then, with excess of Citric Acid, is the salt which gives to the Tomato its agreeable flavor.

George Dow (General History of Dichlamydeous Plants. in four ponderous volumes, London, 1831,) says the esculent tomato was cultivated as early as 1596. Can it be possible that so much time has elapsed, and this fruit has been so very generally relished in different nations, and yet no one has heretofore been prompted to examine into the cause of its palatableness?

I have some further observations to make on this plant, and especially on its medicinal properties; but they will, perhaps, be more appropriate on another occasion.—*Western Lancet*, Jan., 1851.

Part 4.—Editorial.

ARTICLE I.

1

ILLINOIS STATE MEDICAL SOCIETY.

We would put all of our readers that reside in Illinois, in mind of the approaching meeting of the State Medical Society, so that they may be prepared to attend it. The meeting will be held in the city of Peoria, on the first Tuesday in June next.

That our friends may be apprized of the qualifications for membership in the Society, we quote entire the clause of the constitution that refers to the subject.

“The members of this Society shall collectively represent and have cognizance of the common interests of the medical profession in the State of Illinois; and shall hold their appointment to membership, either as delegates from local institutions, as members by invitation, or as permanent members.

“*The Delegates* shall receive their appointment from permanently organized medical societies, medical colleges, hospitals, lunatic asylums, and other permanently organized institutions of good standing in the State of Illinois. Each delegate shall hold his appointment for one year, and until another is appointed to succeed him, and shall participate in all the business and affairs of the society.

“Each local society shall have the privilege of sending to the society one delegate for every five of its regular resident members, and one for every additional fraction of more than half of this number. The faculty of every regularly constituted medical college or chartered school of medicine, shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital, and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate.

“*The Members by Invitation* shall consist of practitioners of reputable standing from any part of the United States. They

shall receive their appointment by invitation of the meeting, after an introduction from any of the members present, or from any of the absent permanent members. They shall hold their connection with the society until the close of the session at which they were received, and may participate in the discussions without the right of voting.

"*The Permanent Members* shall consist of all those who have served in the capacity of delegates, and of such other members as may receive the appointment by unanimous vote.

"Permanent members shall at all times be entitled to attend the meetings, and participate in the affairs of the society, so long as they shall continue to conform to its regulations, but without the right of voting; and when not in attendance, they shall be authorized to grant letters of introduction to reputable practitioners of medicine residing in their vicinity, who may wish to participate in the meetings as provided for members by invitation.

"Every member elect, prior to the permanent organization of the annual meeting, or before voting on any question after the meeting has been organized, must sign these regulations, inscribing his name and address in full, specifying in what capacity he attends, and, if a delegate, the title of the institution from which he has received the appointment."

We hope there will be a general attendance of all those who were elected permanent members last year, as well as a full representation from the various societies and other institutions entitled to representation. From the interest we have heard expressed, we feel authorized to say that there will be a full delegation from Chicago.

ARTICLE II.

PERPLEXITIES.

The following precious moriceau will give our readers some idea of the troubles and perplexities attending the publication of a Medical Journal. We are very happy to say that there are but few cases of this character. In fact most of our patrons lay us under deep obligations for the polite and

flattering treatment we receive at their hands. There are a few, however, that think we should know when, and to where they move, without their being at any trouble to keep us informed.

When we send one number to a subscriber, by his request, he owes for the rest of the volume, as our terms are payment in advance ; and if we send the rest of the volume as he has directed, we have complied with our part of the contract.

We do not discontinue, except at the close of a volume, and if it is stopped before the close by the subscriber's request, we charge for the whole year.

Some think they are only responsible for what they get under such circumstances, even though we may have been at the expense of sending them the Journal for years. The law holds differently ; but when a man is (as the author of this letter, and most of those who are governed by such principles are) out-lawed, what can we do ?

We can bear to be quietly or politely robbed of our dues, with christian fortitude and some degree of composure, but when insult is added to injury, we feel like using the editorial weapon of defence, and give to such as do it a notoriety they might not otherwise attain. In the present instance we in good faith sent the Journal one year to Dr. B. Z. Alexandre, of Beloit, Wis., when finding our subscriber had left, we discontinued it. His name was given our agent as a new subscriber, when in Oshkosh, about a year ago, without any allusion to his having subscribed at Beloit, and we sent it to him another year regularly ; and when our collector sent his bill in, he received the following reply which we copy *verbatim et literatim*:

OSKOSH, Wis., March 21, 1851.

Dear Sir,

Your's of the 28 inst I am just in receipt of and in reply I would state to you that I have never received but 3 Nos of your Medical Journal you state that it was send to my adress in Beloit I would state to you that I have not resided in that Town since the early part of the

fall of 1848 Therefore it was the duty of the P. Master. to write you that they were not taken from the office on the receipt of the 1th or 2d no. it is very foolish for you to expect me to pay for that which I never received the 3d No last published I am ready to pay for and I wish it discontinued If you should have the good luck to collect the \$6 you have charged me with and which I have never received no value for *Please be so kind as to let me know how when and where and who pays the cost &c* You will find it an up hill business no doubt, as I ow nothing and own nothing but always pay my dues your attention to the above will as you wrote me save trouble and expense to you instead of me.

ALEXANDRE M D

ARTICLE III.

STATISTICS OF MEDICAL SCHOOLS—SESSION 1850—51.

	Students.	Graduates.
Jefferson Medical College,	504	227
University of Pennsylvania,	466	167
University of the City of New York,	411	116
College of Physicians and Surgeons, N. Y.,	230	60
Cleveland Medical College,	202	
Philadelphia College of Medicine, (2 sessions)	244	72
Medical College of Georgia,	159	50
Ohio Medical College,	186	59
Buffalo Medical College,	115	30
Rush Medical College,	132	30
Geneva Medical College,	101	
Starling Medical College,	125	35
Castleton Medical College, (2 sessions,)	153	64
Pennsylvania Medical College,		36
University of Maryland,		45
University of Louisiana,		37
Albany Medical College,	93	24
New York Medical College,	40	12
Washington University of Baltimore,		13

	Students.	Graduate#.
Kentucky School of Medicine,	100	
University of Virginia,	381	24
Indiana Central Medical College,		18
Keokuk (late Rock Island,) School,		10
Dartmouth Medical College,		9
Yale College,		11
Harvard University,		10
University of Missouri,		83
Baltimore College of Dental Surgery,		17
Philadelphia College of Pharmacy,	82	19

ARTICLE IV.

MISCELLANEOUS MEDICAL INTELLIGENCE.

Dr. John Curwen, late assistant physician in the Pennsylvania Hospital for the Insane, has been appointed Superintendent of the Pennsylvania State Lunatic Asylum at Harrisburg.

Prof. Thos. Reyburn, of the University of St. Louis has resigned his chair in that institution.

Not having received the January number of the Ohio Med. and Surg. Journal, we were not aware of the editorial change in that periodical. Prof. R. L. Howard, has assumed the laborious and responsible position vacated by Dr. Smith. His labors will be satisfactory to the readers of that work, if they appreciate correct taste and sound judgment.

We observe by the tariff of fees adopted by the Medical profession of Richmond, Va., that they charge from \$25 to \$50 for making a post mortem examination in cases of legal investigation. The ordinary obstetrical fee is \$20.

The *Northern Lancet and Gazette of Legal Medicine*, published at Plattsburg, N. Y., comes to us in a new and greatly

improved form. It has been reporting a series of Lectures on Medical Jurisprudence, by Anthony Todd Thompson, which are exceedingly interesting.

Prof. Blaney has recently successfully treated a case of poisoning by arsenic, where a large quantity of the poison had been taken by a child, with Calcined Magnesia and Hydrated per Oxide of Iron. The case will be reported.

Prof. Thos. Spencer, of Milwaukee, Wis., who was elected Emeritus Prof. of Theory and Practice of Medicine in Rush Medical College last fall, after resigning his chair in that Institution on account of ill health, we are pleased to learn has very much improved since that time, and now has a fair prospect of entire recovery.

Professors Jackson and Bigelow, of Boston, are on a visit to Europe. A large number of physicians have gone over. No doubt the great London World's Fair has influenced many to go the present year, who designed to visit Europe within a few years of this time.

Dr. Cain, one of the Editors of the Charleston Medical Journal, has recently been using the inunction for scarletina as recommended by Dr. Schneeman, with the most flattering results. Dr. Ebert, of Berlin, N. Y., reports 28 cases of the same treatment, in the N. Y. Med. Jour., with the most satisfactory success.

The Medical College of Ohio, is about to erect a new college edifice in Cincinnati.

The New Jersey Medical Reporter, is changed from being a quarterly to a monthly Journal. This denotes prosperity, which it richly deserves.

Professors Brainard and Davis have gone to Charleston, S. C., to attend the meeting of the American Medical Association, and Professors Blaney and Evans to Cincinnati, to attend the meeting of the American Association for the advance-

ment of Science; we shall therefore be able to furnish our readers a synopsis of the proceedings of both these bodies at an early day.

Small Pox has been quite prevalent in Chicago for a few months past.

We hear that there were over sixty students in attendance on the first course of lectures in the Medical Department of the University of Michigan. Truly an auspicious beginning—success attend the Institution.

Some of the advocates of high charges for lecture fees in Medical Schools, think it not dishonorable for a richly endowed institution to lecture free; but if those who are not rich, in the immediate vicinity of them, adopt the same policy, it is highly dishonorable. We long ago learned that wealth secured the homage of many persons, but did not know that it absolved allegiance to any rule of propriety.

Dr. R. D. Arnold, of Savannah, Geo., has been presented with a splendid piece of plate as a token of respect for his gratuitous and faithful services, as physician to the Hospital for a term of 15 years. It bears the appropriate inscription, "I was sick, and ye visited me."

The Medical Department of the University of Nashville, has been organized. The first course of lectures will commence in November next.

It would appear that Iowa has actually levied a tariff on Medical knowledge, and gives the graduates of the Keokuk school in that State "important legal immunities" over those who get their education out of the State. Those connected with that school think it fine fun; but we doubt their being able to make students attend their school, even by a resort to law. The "*immunities*" would'nt pay.

Tannin applied to the inflamed part and pressed down under the edge of the nail, has been found good for inverted

toe nail, by Dr. Drake, of Lexington, Ky. He kept the application on with a roller bandage.

M. Rigal has communicated to the Surgical Society of Paris the discovery that if a pistol be discharged with the muzzle held tightly against the chest, so as to prevent the ingress of air into the barrel, the ball will not penetrate the wall of the thorax but be deflected at a considerable angle. Better not try it.

The Boston Medical and Surgical Journal says in reference to Prof. Davis' History—

"Dr. Davis, in this little volume, has given us a history of the rise and progress of medicine, medical institutions, &c., in this country, from the landing of the Pilgrims at Plymouth, in 1620. Such reviews of the past, as Dr. Davis justly remarks, are not only peculiarly appropriate, but in the highest degree profitable to the members of our Profession. It is also pleasant to compare the dogmas of the profession in past times, with the present advanced state of medical science. Yet there were many master spirits then in the medical ranks, who labored with a zeal worthy the imitation of their successors. Dr. Davis, in mentioning the wants of the profession of the present day, assumes the proper position; and if his suggestions should be adopted, the greatest practical good would follow, both as regards the interests of the profession and the welfare of individuals generally.

OBITUARY.

Prof. J. B. Beck, of the College of Physicians and Surgeons of N. Y., died on the 9th ultimo. Dr. Beck was one of the most learned and honored of our profession in this country.

THE NORTH-WESTERN MEDICAL AND SURGICAL JOURNAL.

VOL. IV.]

JULY, 1851.

[No. 2.

Part 1.—Original Communications.

ARTICLE I.

Cases of Poisoning with Arsenic.—By SAMUEL THOMPSON, M.D., of Albion, Edwards Co., Ill's., President of the State Medical Society, etc.

Cases of Arsenical Poisoning are among the rare incidents in the experience of a physician residing in the country. To carefully communicate to others the records of any such cases, as occur to any of us, I consider therefore to be a special duty. There are also other reasons why in reference to such accidents especially, each should publish his experience and ideas, inasmuch as our highest authorities only form *their* opinions from the gleanings of settled records. And there are *yet*, some points, regarding both the action of the poison and the means of remedy, upon which considerable obscurity still exists.

The following extract from Dr. Christison's work on Poisons, (an allowed standard authority,) comprises I believe, the generally seconded views upon the subject. He classes the effects of Arsenic in three divisions. "In the first order of cases "Arsenic produces symptoms of irritation or inflammation "along the course of the alimentary canal; such cases are the "most frequent of all. The person commonly survives 24 "hours, seldom more than three days, but instances of the "kind have sometimes proved fatal in a few hours, and others

"lasted for weeks." "In regard to the ordinary progress of the symptoms, the first of a decisive character, are sickness and faintness," sometimes occurring in a few moments, seldom delayed more than an hour.

"The second variety of poisoning with Arsenic includes a few cases, in which the signs of inflammation are far from violent, or were altogether wanting, and in which death ensues in five or six hours, or a little more, at a period too early for inflammation to be properly developed." The symptoms, Dr. C. thinks are then to be referred, to what he considers the probable cause of death in most cases. "An action on some remote organ." "The symptoms in these cases occasionally amount to absolute narcotism, and succeeding to vomiting, extreme faintness, at times amounting to deliquium." This variety has only been observed when the dose has been *very large*, or in a *state of solution*, or, (as stated) when the Arsenic was in little masses.

"The third variety of poisoning with arsenic, places in a clear view its occasional action on the nervous system. This occurs chiefly in persons, who from having taken but a small quantity, or from having vomiting soon after, are eventually rescued from destruction. But it has also been met with in some cases where death ensued after a protracted illness; in such cases the progress of poisoning may be divided into two stages. The first train of symptoms is exactly that of the first or inflammatory variety, and is commonly developed in a very perfect and violent form. In the second stage the symptoms are referable to nervous irritation. These generally come on when the former begins to subside; yet sometimes they make their appearance clearer, while at the same time the signs of inflammation in the alimentary canal continue violent. The nervous affection varies in different individuals; the most formidable is coma; the slightest, a peculiar imperfect palsy of the arms or legs, resembling what is occasioned

by lead, and between these extremes have been observed epileptic fits, or an affection resembling hysteria or mania."

Now the cases with the details of which I am about to present you, undoubtedly belong to the third or last class, at the same time the symptoms deviated somewhat from Dr. C.'s description, and it was probable, indeed, that in the first instance the amount of poison taken was large, as it will be seen by the analysis of Dr. David D. Owen, that in the contents of the vial I sent him containing the matters left at the bottom of the vessel in which the separated food had been cooked, there was "a considerable quantity of arsenious acid." Now it was evident the arsenic must have been introduced during or before the process of boiling, and as boiling water dissolves about 77.75 of arsenic to 1000 parts of the water, the proportion of arsenic contained in the food was most probably considerable.

It was about dark on the 9th of July last, that I was summoned in a great hurry to visit a family four or five miles distant, who were supposed to be poisoned. I enquired of the messenger, in what way it was supposed the accident had occurred, and what was the poison suspected to have been taken. He informed me that they had been using arsenic to poison flies, and they believed they must have gotten some in their food, as the whole family, eight in number, were taken bad either directly or shortly after dinner. I therefore took with me such antidotes as the suspicion suggested.

Now as in these matters, details are often of great importance to the correct appreciation of facts, I will run the risk of being tedious, by describing the suffering parties. There was one young woman, of about 25 years of age, whom I shall designate as No. 1, stout, plethoric, of sanguine temperament, fair florid complexion, and black hair. (Her mother died of Phthisis.) Another of about the same age, No. 2, rather slight and of nervous sanguine temperament and fair hair and com-

plexion. One man, No. 3, aged about 55, of robust make and sanguine bilious temperament, has been a hard drinker all his life, but rarely gets drunk. No. 4, a man about 50, of the same general description and habits. No. 5, a youth about 19 of robust healthy frame, and tolerably temperate habits. No. 6, a man of about 25, very fair complexion and sandy hair, and also a soaker. No. 7, a young man of about 21, tall, stout, muscular, of sanguine bilious temperament, and also following the custom of the establishment, of taking fermented liquors habitually and freely, and No. 8, a lad of about 16, a brother to the last.

It appears that immediately after dinner, which consisted of Windsor beans and new potatoes boiled together with some bacon in an iron pot, besides rice, butter, bread, etc., the two young women were first attacked with vomiting, but without suspecting what was the cause, while No. 3, the master of the house, whose robust and rugged constitution seemed to withstand the influence of the poison, walked off to his work in the harvest field, but after going a few yards, he also began to vomit; and when he had proceeded about 200 yards, sank down faint and exhausted, where he was shortly after found by the two young women, who, temporarily recovering from their first attack of vomiting, went after him and assisted to get him into the house. At this time, 1 o'clock P. M., all the family were suffering more or less from what they now felt sure must be poison, but the master of the house still obstinately persisted it could not be from arsenic.* At this time No. 4 becoming alarmed, declared that if he was to die poisoned, he would die drunk, and at once drank off about a pint of whiskey. It does not appear that any thing more was done till about five or six o'clock, (meanwhile the parties had been getting worse,) when the lad, No. 8, being the least effec-

*He had so often been blamed for the careless way in which he kept arsenic about the house, that being a very self-willed, pertinacious man, he would by no means allow that he had been to blame.

ted, managed to crawl across the fields to the adjoining farm to obtain help, whereupon a messenger was dispatched for the uncle of No. 2, a practitioner of medicine residing about five miles off, and another person came for me.

When I arrived at the house I found the two young women in violent convulsions; the hands clenched, the feet extended by the spasmodic contraction of the gastrocnemii, etc. The jaws locked, and at intervals well marked opisthotonos, so that in fact they stood on their heels and their heads. These two as well as the others, complained of harsh metallic taste, burning at the epigastrium, some had head-ache, and some diarrhoea. One of the young men, (No. 5,) suffered also from tetanic spasms. The pulse in all the cases was weak and irregular, and not frequent, and the skin cool.

I at once administered to all who would take it, as much Percipitated Carbonate of Iron as they could swallow. To some I gave it in molasses, to others, who objected to the molasses, it was given, just made into thin paste with water; the doses being repeated as fast as they were vomited. All who took the iron, felt almost immediate relief from the excessive burning, aching and sinking, from which they had previously suffered. But two of those who were the worst, and who subsequently remained the worst, namely: the young man No. 5, and the young woman No. 2, for more than an hour obstinately refused to take any thing, but at last her sufferings, added to the evident relief obtained by others, induced No. 2 to submit, though she would not take the Iron. I therefore gave Calcined Magnesia in teaspoon-full doses, which almost immediately mitigated her sufferings. But it appeared to me that the relief was neither so complete nor so *permanent* as that obtained from the Iron. No. 5 took the Iron, but sparingly.

Now it will be remembered that after the full repeated doses of Carb. Iron, or of the Magnesia, all of the patients

appeared relieved of their most distressing symptoms, and they all passed a tolerably good night. But the next morning early, (the 10th,) the tetanic spasms in the young woman recurred, as also in the youth, No. 5, but all appeared easy in the intervals except No. 2, who complained of a feeling of weight on the vertex. The symptoms of nervous irritation now predominated in each case. It was remarkable that whiskey to those persons so well used to it, did not appear to aggravate the symptoms, which if irritation or inflammation of the mucus membrane of the stomach had existed, we should suppose must have been the case. Three of the men, who appeared to suffer but little to-day, insisted on going into the harvest field, and as they afterwards told me, while *drinking* and *sweating freely*, they felt almost well; but as soon as the sweating ceased, all their bad symptoms returned. During the fits of convulsions, which with frightful intensity would sometimes last for an hour, consciousness was never lost; though the power of speech was nearly gone, the voice never rising above a hissing whisper. The desire for cold drinks during the continuance of the spasms was intense. In the case of No. 5, it was as much as four stout men could do during the fits to prevent him beating himself to pieces against the floor or walls; and throughout their sickness, after the first night, constipation, *not* diarrhœa, had continually to be obviated. I continued in attendance regularly until the 16th.

I have omitted to state that on the night of the 10th, the two young women were troubled for a time with excessive pruritis over the whole body, with occasional short flashes of fever.— On No. 2, an eruption, almost resembling impetigo, came out over the legs, but this might have originated from the desperate frictions to which they had been (according to popular usage,) subjected during the spasms before I arrived. On the second night, during a long continued epileptic fit, with hard full pulse at both radials, and carotids, with aphonia and heat

of scalp, I drew *about* 3 xx blood from No. 5. I could only guess at the quantity, as I had to perform the operation during the most violent struggling and resistance, though he was held by three men. He became calm afterwards, but it did not appear to decrease the frequency of the paroxysms. The least exertion, the smallest excitement of mind or body, being for sometime succeeded by these fits, though by degrees getting milder each time, and these attacks were most apt to occur towards night.

Now the course I pursued was as follows: After the first twelve hours I concluded it was useless to administer antidotes, the power of which must depend upon their coming in contact with the poison in the stomach, and forming insoluble compounds with it. The object next to be sought, I considered must be to remedy the evils already produced, and to remove such portions of the poison as remained, not in the stomach or bowels, but as I believe, absorbed into the blood and thereby deposited in the tissues.

For this purpose I employed occasional doses of Calomel combined with Hyosciamus, with Spts. Nitre and Compound Powder of Jalap, and each night Morphia with Quinine, to soothe and sustain the nervous system, and after the first three or four days I put them all upon a steady course of the Tinct. Ferri Mur. gtt. xx ter. die.

Now writers on Toxicology appear chiefly to have directed their attention to the treatment of cases of poisoning by arsenic in *powder*. Their instructions are chiefly in regard to the gastric or arteric irritations. Dr. Christoson says, after the poison has been removed from the stomach, "Two indications of cure remain to be fulfilled, viz: to allay the inflammation of the alimentary canal, and to support the system under that extraordinary depression which it undergoes in the generality of cases. *Were it not for the latter* of these objects, the treatment would be both obvious and generally successful."—[Christoson: page 335: 3d London edition.]

I quote from Christoson alone, because he appears to be the standard and basis of most others. Dr. Pareira, in his valuable and copious work on *Materia Medica*, gives but a synopsis of Dr. C.'s facts and opinions. In Dr. Apjohn's article upon toxicology in the *Cyclopedia of Practical Medicine*, he refers briefly, under the head of Arsenic, to its effects upon the nervous system, but it is merely to mention the fact. He denies the absorption of arsenic into the blood as its *modus operandi*, though he rather favors the views of Morgan and Addison, which refer the effects to the action of the poison upon the nervous fibrils spread over the lining membrane of the vascular system, (apparently overlooking the fact that this is merely a *mode of action through absorption*.) And thus it would act directly on the sentient extremities of the ganglionic nerves, for it is these which supply the blood-vessels, and thence producing either irritation of the ganglionic system and its dependencies, or prostration, just in proportion to the concentration of the cause in relation to the resisting power of the individual. But if poison is thus taken into the blood, what becomes of it? Is it all excreted at once by the alvine discharges, etc., or is it only part excreted and part deposited? If we admit the latter, which we can hardly doubt, from the analogy of Ferruginous and other medicinal metallic substances, then what are the effect of these deposited portions? are they inert, or do they combine to exert their usual irritating effects?*

Now it appears to me that not only are these important to a full understanding of some of the phenomena I have recorded, but also as a guide to correct and scientific treatment, or in other words, to acting in reference to the real condition of

*Any substance absorbed from the alimentary canal, (by the veins.) goes by them to the liver, thence to the right side of the heart, thence through the lungs, thence to the left side of the heart, and thence over the system. Its first effects then would be upon the ganglionic system, as exposed to its action in the veins, liver, heart, etc. Its second effects would be again upon the heart, and then upon the general organism; and hence would result poisoned nutrition, which could only be removed by the absorbent action of the veins or lymphatics, and thence excreted with other morbid or effete elements.

the system and the cause if its suffering. If morbid matters are in the blood or in the tissues, the excreting organs should remove them.

The object in correct practice should be first so understand, if possible, where and how nature suffers; and where she fails to help herself, we should aid her weakness; and when she injures herself by her efforts, we should control her excesses. If we were treating an injury of the surface of the body, (as from a splinter or a thorn,) we would both strive to moderate the irritation, to remove the cause, and help nature to repair the evil done; and one effort would contribute to the success of others. If we find a person then suffering from the nervous irritation of arsenical poisoning, is it sufficient to sooth the nervous irritation, or must we not rather set all the outlets of the body to work, to remove the cause remaining? If my views are correct, that such cause is really left in the tissues of the body, then that the latter is a prominent duty cannot be doubted.

In this place I mention an idea that has occurred to me, which, though merely a hypothesis, may suggest to others further enquiry. The known tendency of Arsenic to combine with Iron is the basis of all our effectual antidotes to its effects. May not the combination of the arsenic with the iron of the blood account for some of its effects?

It will also be remembered that I mentioned that whiskey taken in considerable quantities, did not, (to say the least of it,) appear to produce any injurious effects. Dr. Christeson, at page 337, says, when speaking of the practice proper in the advanced stages of poisoning with arsenic, "That the principle object is to support the system by mild nourishment, avoiding at the same time stimulant diet of every kind, *but especially spiritous and vinous liquors.*"

I before remarked that had gastric irritation been the prominent symptom, the propriety of this was evident; but I think

it is further evidence that the stomach bore but little share in the injury, and I suspect the *accustomed stimulus*, only aided nature to sustain its own action and carry on the elimination of the poison.

For myself I confess, reasoning only upon the recorded observations of others, I by no means feel sure that inflammation of the gastric surface is essential to the most violent effects of the arsenic, because in those cases in which death has occurred within two days, it has by no means been found as a constant circumstance.

Arsenic is not a corrosive poison. The after effect of inflammation of the stomach may be a secondary result from the poisoned condition of the system, in common with inflammation and gangrene of other parts, etc. etc. The most soluble preparations of arsenic are the most virulent; and our very antidotes act on the principle of forming an insoluble compound, perhaps therefore we have too readily supposed that gastric inflammation is a prominent and direct cause of death.

I submit these views and suggestions with great humility, for my experience herein, is small; but I conceive we should never let respect for authorities, stay us from enquiry.

P. S. I have to acknowledge my obligations to that eminent Chemist and Geologist, Dr. David D. Owen, of New Harmony, for his polite and able analysis of the suspected articles. His report I would copy but for the already too great length of this article.

April 30, 1851.

ARTICLE II.

A Statement in regard to several Puerperal Fever Cases, as read before the Indianapolis Medical Society, June 1st, 1850.—By T. BULLARD, M.D.

With your permission, I will make a few brief statements, in regard to a matter of much interest to myself, and which may be the occasion of eliciting the expression of opinions and facts of value to the Society.

From the 25th of March to April 14th, I attended five cases of Obstetrics—but one of them in town, and this manifested a slight febrile tendency, which, however, required but two or three days attendance. Those in the country, did not demand a second visit, save one, and that for an attack of tonsilitis within the mouth. From April 14th to May 23d, I attended nineteen cases, ten of which were within the corporation. Of the nineteen, ten had puerperal fever. Of these I have had five fatal cases, and I have learned that one other died whom I delivered, but which fell into the hands of another physician, on the third day after delivery, while I was ill.

My first fatal case, was a woman of bad constitution—scrofulous—attacked on the 3rd day and died on the 12th; sinking from secondary causes—prostration, etc., from uncontrollable irritation of the bowels.

Second case attacked on the 3rd day and died on the 6th. Rapid peritonitis, great effusion. 3rd attacked on the 2d day and died on the 5th; 4th attacked on the 2d day and died on the 4th; 5th attacked on the 5th and died on the 6th; showing that the sooner febrile symptoms showed themselves after delivery, the more rapidly fatal were the cases.

The most severe case I have had which recovered, was not attacked until the 5th day, and on the 6th day the peritoneal

inflammation seemed to be transferred to the pleura. Active depletion, etc., controled this, and in a few days she was convalescent.

The 3d and 4th cases had great gastric irritation and regurgitation of every thing taken into the stomach, with a dark green fluid, much such as I have seen in the black vomit of the yellow fever.

Now, without detaining you, there are a few questions of interest arising from the foregoing facts. For nearly six years, during which time I have been in practice in Indiana, I have had a reasonable share of obstetric practice; and until last month, have not lost a single patient from Puerperal Fever, and but two, I believe, in child-bed—one in the last stages of the Consumption, and the other from congestion in Autumnal fever. Why then this sudden, and to me somewhat trying loss of *five*, within as many weeks? Unless desired, I will not enter upon the treatment, which, to the best of my judgment, was in accordance with the received principles of practice, which, by-the-way, I admit is not saying much, for one can find authority for any mode of practice, and one about as successful, or rather *un*-successful as another. In three of the fatal cases, I had counsel, and offered it in all save one, and in that it was so obviously useless, I did not wish to involve any one else in the responsibility.

First, then, is it epidemic? and if so, is it confined to the immediate vicinity? I believe numbers present, will be able to aid in the answer of this query.

Second, if not epidemic, is it contagious, communicable, *portable* or transmissible by the physician, nurses or friends, passing from one puerperal woman to another?

I have had perplexing doubts on this subject, and there are some weighty reasons for and against. I do not here allude to the testimony of authors on the subject, although I have

carefully examined them, for I am not writing an essay upon this disease. I have not a thing to hide in this matter, and wish the truth to be known.

If no other physician in town has had marked cases of this disease since April 14th, or about that time, except those who may have been in connection with patients whom I have attended since then, it would seem strongly to show that the "fons et origo," as the lamented Harrison would say, was the first fatal case I had, and that all others had in some way been derived from that.

In favor of this view, it should be stated, that in the family of my first fatal case, at the time of her confinement, her little daughter, of six or seven years of age, was ill of an ordinary intermittent, and about the third day after febrile symptoms manifested themselves in the mother; severe *erysipelas* took the place of the intermittent, which proved a malignant and obstinate case, yet which ultimately recovered—looking not only towards its communicability, but satisfying the opinion that the virus of the one disease may produce the other.

On the other hand, why have not my country patients been attacked, if it is transmissible, and not locally epidemic? True, I understand that two of these were so attacked, of whom one died and one recovered, and that the physician who attended them while I was ill, has since had at least one fatal case in his own practice with which I had no intercourse until a few hours before death. I shall be glad to hear anything which shall shed light upon this obscure, and to me, interesting matter. I shall also be most happy freely to answer, as far as I am able, any inquiries in relation to my cases, and beg to be permitted to express my thanks to those of my brothers in the profession who have so freely and unsought, given me their countenance and sympathy in this dark period of my professional career among you. You all well know, that

it is the dark hour,—the one of trial and misfortune, if you will, which ties one's friends, and I am happy to say that mine have not been only fair-weather friends.

I may add, that the character of the labor, either in regard to time or severity, seemed to have no influence whatever, in inducing an attack. Indeed, the worst case I had, was delivered a few minutes before my arrival, while in the act of relieving her bowels, not admitting she was in labor, so that I had nothing to do but put her to bed and deliver the placenta from the vagina by gentle traction upon the chord. Nor was ergot used in but one case attacked, while it was used in two or three not attacked at all.

Fearing, as the disease seemed to trace me alone, that possibly I might communicate the poison, and being far from well, I determined to absent myself from town. I consequently left for Peru, Logansport, Lafayette, etc., and was gone some nine days. On the next day after my return, with every article of apparel new, I ventured to attend an obstetrical case, believing most sincerely, that so far as contagiousness was concerned, I ran no risk of communicating the disease. Notwithstanding, she was seized with puerperal fever and died on the 5th day—and the same result in regard to an Irish woman whom I delivered on the 3d day after my return! I now refused to attend all obstetric cases, till about the first of September. Since then I have been gradually resuming my obstetric practice, and thus far satisfactorily.

Meanwhile, I believe our country has not been entirely free from a tendency to puerperal fever and erysipelas, which last especially might be regarded as epidemic during the last of winter and early spring. Other of our physicians I believe, have had a number of puerperal cases, occasionally, ever since last spring; and it is well known that an unusual number of women have been lost within the last twelve months,

in child-bed. I have seen several cases since last June occurring in the practice of other physicians, some of which died and others recovered. My opinion is, that the disease is now on the decline, and when it does occur, it is milder and more answerable to treatment. Still, our best physicians, occasionally have a fatal case.

If hereafter, the above brief record of facts should afford any relief to a brother practitioner in the way of precedent, showing that he is not the first, thus, almost alone to encounter the onset of such a malady, I shall be more than repaid.—Such relief, I certainly did obtain from the perusal of Meig's article on Puerperal Fever, especially from Dr. Rutter's experience, to which I beg leave to refer.

ARTICLE III.

A case of Insanity cured by Chloroform.—By ASAHEL CLARKE, M.D., of Beloit, Rock Co., Wis.

On the evening of the 19th of March last, I was called to see Mrs. F., aged 49. For two or three months previous to this time, she had been gloomy and desponding. During the day a letter had been received from California, containing unpleasant intelligence. Several hysterical convulsions followed. She had recovered from these when I arrived, but appeared to be insane. I could not persuade her to take any medicine, and left, advising her attendants, if she did not get sleep during the night, and was not in her right mind in the morning, to send for her husband. (Mr. F. had gone to the County Seat as a jurymen.)

He was sent for, and the family physician also, (a Homœopathist.) Ten days after I was requested to see her again.

She has had but little sleep, and has continued to be entirely insane ever since my last visit. I advised the use of chloroform. Mr. F., after making many objections, consented to have it given. I gave it till it produced quiet sleep, and left, giving directions to have the room kept still till she awoke.— She slept about twenty minutes after I left her, and awoke quite rational, and has continued so ever since. After she awoke, she commenced talking about matters that occurred during the day of my first visit. The ten days that had elapsed since, were wholly lost time to her. She has no recollection of any thing that occurred during that time.

If you think the above, or any part of it, would be of interest to your readers, you are at liberty to publish it.

April 23, 1851.

ARTICLE IV.

The Central Medical Society of Illinois.

This Society held its regular meeting at Middletown, Logan Co., Ill's., May 27th 1851.

A paper was read before the Society, containing "Observations on Cerebro-Arachnitis or Meningitis, as it occurred in Clark, and Menard Cos., Ill's." After which a short address was read by Dr. Chamberlain, which papers were ordered to be published in the "North-Western Medical and Surgical Journal."

A Preamble and resolution was then adopted, to wit:

Whereas, in consequence of high waters, and other interfering circumstances, the Physicians of the Central Medical Society were prevented from attending the regular annual meeting of said society, at which its annual election of officers should have been held—Therefore, Resolved, that said elec-

tion be deferred until the first regular meeting of the Society, on the second Wednesday in August next.

It was also further Resolved, That the Regular meetings of this Society for the current year shall take place as follows:— On the second Wednesday in August, and the second Wednesday in November, 1851; the second Wednesday in February, and the second Wednesday in May, 1852.

Resolved that the times for holding the Regular Meetings of this Society, be published in the Springfield weekly papers, and the proceedings thereof in the North Western Medical and surgical Journal.

On Motion, Dr. Chamberlain was appointed a Delegate to the State Medical Society; to be held in the city of Peoria, on the first Tuesday in June next.

Adjourned to meet on the second Wednesday in August next.

ARTICLE V.

Mountain and Malarious Fevers produced by the same Cause:
By IRA E. OATMAN, M.D., of Dundee, Ill's.

In passing over one thousand miles of the vast plains towards the Pacific, the earlier emigrants of 1849, enjoyed great freedom from fevers. But while going through the South Pass of the Rocky Mountains, some of them experienced extreme dyspnœa, which was increased by exercise. The altitude was 8,500 feet above the level of the sea. This dyspnœa so resembled that I had observed in congestive fevers in Illinois, where the lungs were chiefly affected, that I was induced to enquire if they were produced by the same cause. We began to descend the same day, and were in lower altitude; but still several thousand feet above the level

of the sea. Within a few days, (I lost my Journal,) one-fourth of our company were taken with what is called the "Mountain Fever."

They were attacked with depression of spirits, languor, and debility, with extreme aching in the fore-head and lumbar regions of the back, thirst, coldness and numbness of the extremities, and slight chills. These were followed by an increase of thirst and pain, with febrile reaction—generally high, and in some cases delirium. If not energetically treated, the remission was very light in the morning. The cases yielded in from one to three days, to six or eight grains of Sulph. Quinine and one-fourth to one-third of a grain of Sulph. Morphine three or four times a day, after a mercurial crthartic. The convalescence, was as rapid as is usual in this country, after such fevers.

Fat bacon and coffee had been the staple articles of food, since we left home; and such was our mode of life, that we partook of them in no sparing quantities. These being highly carbonaceous articles, and the weather rather warm, there was evidently an accumulation of carbon in the system. While the same quantities were still ingested, we ascended to an altitude, (8,500 feet,) where the atmosphere was so rare, that, with deep and frequent inspirations, there was not sufficient oxygen taken into the circulation, to maintain the vital actions during active exercise. Hence the dyspnœa and sense of impending suffocation. The carbon, not meeting the proper elements with which to combine, could not be eliminated from the system through the natural avenues. Consequently, a vast accumulation would take place in a short time. The coldness of the nights in this altitude, checking the insensible perspiration, would produce a pathological state of the blood, which would derange, consecutively, the functions of the liver, kidneys, etc., through which the carbon is eliminated. The blood, now loaded with carbon, and imperfectly hæmatized;

failing thereby to stimulate the cerebral and nervous functions, that state of depression and languor would follow, which results in chills and all the phenomena of fever.

Here the country was dry and the air salubrious; and to the closest observer, there was no local cause of disease. Yet here only did we suffer from fevers; and here only did we see the graves of former emigrants. It seemed reasonable to attribute these fevers to an excess of carbon in the system; there being no other appreciable cause.

Let us now examine if fevers called malarious are produced by the same cause. Epidemics of these fevers, occur after protracted heat and drought in marshy and alluvial localities. And according to Dr. Ferguson and others, in the dried up beds of streams; and where absorbing surfaces had been flooded and had become dry. The invariable conditions of protracted heat and drought, would so rarify the air, that the carbon not meeting oxygen in adequate proportions for combination, would accumulate in the system; and if the diet used was carbonaceous, (and soldiers generally use such,) the quantities would be increased. If these conditions obtained where there was vegetable matter in an advanced stage of decomposition, as is usually the case where these diseases prevail, then, through the lungs, would large additions be made to the already excessive quantity of carbon in the system. In the "dried up beds of streams," and where "absorbing surfaces" had been flooded, and had become dry, we would expect to find the remains of decaying vegetable matter largely in the former case, and to some extent in the latter, although not perceptible perhaps, to the eye. But if not as alleged, there were the invariable conditions of protracted heat and drought, or a high altitude, and probably carbonaceous diet, which would produce the same pathological condition of the fluids. The California emigrants above referred to, had neither drought or considerable heat; nor yet were they exposed to alluvial lands

made bare, or grounds annually flooded and now dry and absorbing, with the "vegetation utterly burned up." And yet they had all the phenomena of endemic malarious fever, which was answerable to the same treatment.

This being the true ætiology of these diseases, we may better understand the *modus operandi* of venesection, practiced for the cure of intermittents in the cold stage,—how Quinine, and Morphia, and even active stimulants, remove all the phenomena of fever, by equalizing the circulation, quieting nervous irritability, promoting perspiration, and the secretions of the liver, kidneys, etc. And how the recuperative powers of the system are exerted to free the blood from the surplus carbon, by increasing the fullness and frequency of the respirations, by the vigorous circulation, etc., in fever; making powerful (though sometime abortive) efforts to excite all the organs to vigorous action, through which the carbon is eliminated from the body. Or if there is a relative deficiency of nitrogen in the cerebrum and nervous system, how that is supplied by quinia, and other nitrogenized substances.

Having seen no very satisfactory theory of the chemical nature of this indefinable agent we call malaria, I submit the results of my observations, hoping that they may, at least, throw some light upon the further elucidation of this subject, which has so long been a desideratum in medicine.

There is a highly interesting article in the first volume of the North-Western Med. and Surg. Journal, I find, in reference to this theory of the ætiology of malarious diseases, by S. G. Armor, M.D., then of Rockford, Ill.

Other theories are advocated with plausibility, by eminent men of the west. The progress of medical science is such, that we may hope to be able to demonstrate the true chemical cause of our malarious diseases, at no very remote period.

April 14, 1851.

ARTICLE VI.

Fulton County (Ill's.) Medical Society.

Agreeably to adjournment, the Fulton County Medical Society convened at Mr. Maple's Hall, in Canton, on Saturday the 24th of May, G. H. Hickman being in the Chair, and W. H. McDowell acting as Secretary.

The object of the meeting having been stated, the following resolution was adopted:

Whereas, we cannot recognize Dr. Falkenthal as a regular practitioner of medicine, nor as eligible to membership of this Society; therefore,

Resolved, That he be suspended as a member of the committee appointed to draft and report a Constitution and By-Laws, and that Dr. Wm. H. Nance, be substituted a member of said committee.

The committee previously appointed to draft a Constitution, reported.

On motion the report was accepted and the committee discharged.

On motion it was resolved that a committee be appointed to draft a bill of rates; whereupon Messrs. E. C. Gardiner, J. H. Pearsoll, J. Gregory, and J. R. Walters were appointed said committee.

On motion the society adjourned until one o'clock P. M.

Met pursuant to adjournment. A Constitution and By-Laws were then adopted. The report of the committee on the bill of rates was read, and on motion was laid on the table.

On motion it was resolved to proceed to the election of officers for the ensuing year; which resulted in the election of

W. H. Nance, President; G. H. Hickman, A. Hull, and J. B. E. Albright, Vice-Presidents; Asa Lee Davidson, Record-

ing Secretary; E. C. Gardiner, Corresponding Secretary; J. R. Walters, Treasurer; H. Martin, Librarian; H. Ingersoll, A. M. Johnston, J. C. Fitz, J. H. Pearsoll and J. Gregory, Censors.

The delegates appointed to the State Convention were G. H. Hickman, J. B. E. Albright, J. C. Fitz, and A. Hull.

On Motion, Resolved, That if any of the delegates, appointed to the State Convention, were absent, their vacancies be filled by visiting members.

On motion, Resolved, That the proceedings of this meeting be published in the Canton Register, and the North-Western Med. and Surg. Journal.

On motion, Resolved, That we tender our thanks to Mr. Maple, for the use of his hall.

Physicians present were G. H. Hickman, W. H. Nance, J. C. Fitz, A. M. Johnston, E. C. Gardiner, J. R. Urich, Asa Lee Davidson, H. Ingersoll, J. R. Walters, H. Martin, J. B. E. Albright, W. M. McDowell, J. Gregory, A. Hull, W. D. Nelson, J. H. Pearsoll, and J. B. Cunningham.

On motion the meeting adjourned.

G. H. HICKMAN, President.

W. M. McDOWELL, Sec'y.

Part 2—Reviews and Notices of New Works.

ARTICLE I.

The Physicians Prescription Book: containing List of Terms, Phrases, Contractions and Abbreviations used in Prescriptions, with Explanatory notes; also the Grammatical Construction of Prescriptions, etc., etc. To which is added a Key, containing the Prescriptions in an Unabbreviated form, with a Literal Translation, intended for the use of Medical and Pharmaceutical Students. First American from the tenth London edition. Philadelphia: Lindsay & Blakiston: 1851: pp. 288: 12 mo: (from the publishers, through S. C. Griggs & Co., Chicago.)

This is an exceedingly convenient little work, filled with valuable information to the practitioner. And, as it is becoming more and more fashionable to dispense with the study of Latin in the preliminary education of students, the translations of Latin prescriptions, placed in parallel columns with them, will be very convenient to those, who wish to inform themselves of their meaning and construction, without the study of the language.

The definitions given of the Nomenclature used in prescriptions, will be useful to the medical student in acquiring a knowledge of medical technology.

Not less important, is the chapter on abbreviations. There are so many errors in the abbreviations of prescriptions, that attention should be directed to them with a view to the means of their prevention. Unquestionably this chapter will prove profitable to both the prescribing physician and the apothecary.

The formulary for powders, pills, etc., may be well for examples, but we cannot conceive that much advantage can arise from the study of a long catalogue of prescriptions given entirely independent of their therapeutical application.

Altogether, we regard the little work before us as calculated to be highly useful to the student, the physician and apothecary.

ARTICLE II.

The Dissector or Practical and Surgical Anatomy:—By ERASMUS WILSON, author of "A System of Human Anatomy," etc. With one hundred and fifteen Illustrations. Edited by PAUL B. GODDARD, M.D. A new and improved edition. pp. 458: 12 mo. Philadelphia: Blanchard & Lea: 1851: (from the publishers through S. C. Griggs & Co., Chicago.

This generally popular work is now improved by the supply of deficiencies created by the advance of investigation, and several new cuts; amongst which, those illustrating the anatomy of the parts concerned in hernia, and of the perinæum, are of the most importance.

The work is so generally known and approved, that it is unnecessary for us to say any thing in its commendation.

ARTICLE III.

*A Treatise on Dislocations and Fractures of the Joints:—*By Sir ASTLEY COOPER BART, F.R.S., Sergeant Surgeon to the King, etc. A new edition much enlarged. Edited by BRANSBY B. COOPER, F.R.S., Surgeon to Guy's Hospital. With additional observations, and a Memoir of the Author. A new American edition: pp. 496: 8 mo. Philadelphia: Blanchard & Lea: 1851: (from the publishers through S. C. Griggs & Co., Chicago.)

No Surgical work has attained to a higher position of authority in Great Britain and America, than the treatise before us. The distinguished author, an interesting memoir of whose life is prefixed to this edition, has left behind him no better or more enduring monument to his ability and skill as a surgeon and teacher, than the work before us.

Its eminently practical character, its clear, plain, and forcible delineations of principles and practice are such, as to make it both interesting and useful. No practitioner of Surgery should be without a copy of it in his library.

ARTICLE IV.

*On Diseases of Menstruation and Ovarian Inflammation in connexion with Sterility, Pelvic Tumors, and Affections of the Womb:—*By EDWARD JOHN TILT, M.D., Physician to the Farmington General Dispensary, and to the Paddington free Dispensary for the Diseases of Women and Children, “Omne Animal ab Ovo.” pp 285: 12 mo: New-York. S. S. & W. Wood, No. 261 Pearl St.: 1851: (from the publishers.)

We have been looking with some anxiety for the appearance of this work, materials for which were being gathered by the author, by a circular of enquiry, about a year ago. From a glance at its design and general arrangement, we are very favorably impressed, and have no doubt it will prove to be a valuable work. As it is something new, we will endeavor to give an analysis of it in our next number; in the mean time we advise our readers who wish to post up on the topics indicated in the title at the head of this article, to procure the work and examine it for themselves.

Part 3.—Selections.

ARTICLE I.

Minutes of the Fourth Annual Meeting of the American Medical Association, held in the City of Charleston, May 1, 1851.

CHARLESTON, May 6th, 1851.

The Association met in St. Andrew's Hall at 11 o'clock A. M., the President, Dr. Mussey, in the chair.

Dr Simons, chairman of a committee from the South Carolina Medical Association, welcomed the delegates to the city.

Dr. Frost, chairman of the Committee of Arrangements, read a list of the delegates who had registered their names.

The President read the following letter:

“PHILADELPHIA, Sept. 27th, 1850.

“R. D. MUSSEY, M.D., President of the American Medical Association.

SIR: The state of my health is such as to render my attention to professional duties, for the present, unsafe, and I have, therefore, resolved to seek relaxation abroad. As I shall not, in all probability, return home before the next meeting of the Association, I beg leave to tender my resignation of the office of Secretary, and to offer to the Association, through you, my acknowledgments for the honor with which they have so repeatedly distinguished me.

“With most earnest hopes for the prosperity of the Association, I have the honor to be

“Very respectfully, your ob't serv't,

[Signed]

“ALFRED STILLE.”

On motion of Dr. Arnold, of Ga., the letter was ordered to be recorded on the minutes, in evidence of the high estimation felt by the Association for the services of Dr. Stille.

Dr. Arnold, of Ga., offered the following resolution, which was seconded by Dr. Frost, of S. C., and adopted.—

Resolved, That a committee of one from each State represented in the Association, to be chosen by their respective delegations, be appointed to nominate suitable officers to be elected for the ensuing year.

On motion, the association then went into a recess of fifteen minutes, to enable the delegations to appoint the Nominating Committee.

At the expiration of the recess, the President announced the Nominating Committee as follows: Drs. Horatio Adams, Massachusetts; Usher Parsons, Rhode Island; A. H. Stevens, New York; Joseph Fithian, New Jersey; Joseph Carson, Pennsylvania; G. W. Miltenberger, Maryland; B. R. Welford, Virginia; N. J. Pittman, North Carolina; H. R. Frost, South Carolina; R. D. Arnold, Georgia; W. H. Anderson, Alabama; James Jones, Louisiana; J. B. Lindsley, Tennessee; J. B. Flint, Kentucky; Geo. Mendenhall, Ohio; Thos. Reyburn, Missouri; John Sloan, Indiana; C. Boyle, Dist of Columbia.

The President delivered an address.

The Nominating Committee reported the following officers of the Association.

President—James Moultrie, South Carolina.

Vice-Presidents—G. Hayward, Mass.; R. D. Arnold, Ga.; B. R. Welford, Va.; J. B. Flint, Ken.

Secretaries—H. W. De Saussure, S. C.; P. C. Gooch, Va.

Treasurer—Isaac Hays, Pennsylvania.

The report was accepted, and on motion of Dr. La Roche, of Pennsylvania, it was resolved that the officers thus nominated be the officers of the Association the year; and that the officers elected be invited to take their seats. The President elect then returned his thanks to the Association, for the honor conferred upon him.

The Secretary read a report transmitted to him by Dr. Roberts, of Maryland, of a committee appointed at the last meeting of the Association to report unfinished business. On motion of Dr. Arnold, of Ga., the report was accepted and laid on the table.

Dr. Gaillard, of S. Carolina, moved that the following resolution, offered by Dr. Drake, of Ohio, at the session of 1850, be taken up for consideration, viz:—

Resolved, That the second section of the regulations of the Association be so amended as to require that candidates for membership by invitation be nominated in writing by five members; that when elected, they shall enjoy all the rights of delegates; and that all permanent members shall be entitled to vote.

After some discussion, on motion of Dr. Stevens, of New York, the resolution was referred to a committee consisting of

Dr. Drake, of Ohio, Dr. Wood, of Pennsylvania, and Dr. Wellford, of Virginia.

The reports of standing committees being then called for, Dr. Stevens, of New York, offered the following resolution:

Resolved, That a committee be appointed to report to the Association the business before it, and to offer such suggestions as they may deem advisable for the due discharge of the same.

The resolution was discussed by Drs. Storer, of Mass.; Moore, of Ga.; and Bellinger, of S. C., and finally rejected.

On motion, the Association adjourned to meet on Wednesday, the 7th, at 10 o'clock A. M.

MAY 7TH.—Morning Session.

The Association met at 11 o'clock A. M., the President, Dr. Moultrie, in the chair.

Dr. Wood, of Penn., chairman of the committee appointed to consider and report on the amendment to the constitution, proposed in the resolution of Dr. Drake, of Ohio, at the session of '50, reported that it was advisable to adopt that part of the resolution requiring members by invitation to be proposed, in writing, by five members, giving them all the privileges of delegates, except the right to vote; also recommending that the part of the resolution giving permanent members the right to vote, be adopted.

Dr. Drake, of Ohio, from the Same committee, made a minority report, recommending that the constitution be so amended as to require members by invitation to be nominated in writing by five members, giving them all the rights and privileges of delegates, including those of voting and permanent membership; also recommending that permanent members be allowed the privilege of voting. These reports were discussed by Drs. Arnold, of Ga.; Wood, of Penn.; Davis, of Ill.; Drake, of Ohio; Atlee, of Penn.; Meigs, of Penn.

At this stage of the discussion, Dr. C. Hooker, of Conn., asked and obtained a suspension of the discussion, to enable him to offer the following resolution, which was adopted:

Resolved, that no member be permitted to speak longer than ten minutes at one time, in any one debate.

The discussion of the report was then resumed by Drs. Dickson, of S. C.; Hays, of Penn.; Davis, of Ill.; Bond, of Md.; and Z. B. Adams, of Mass.

Dr. Hays, of Penn., moved to lay the reports on the table, but modified the motion so that a vote might be taken on each recommendation of the reports. The part of the report requiring members by invitation to be nominated, in writing, by five members, and giving them the rights of delegates, was then lain on the table. The vote being taken on allowing permanent members the privilege of voting, it was lost by a large majority.

Dr. Hays, of Penn., Treasurer and Chairman of the Committee on Publication, presented and read his reports, concluding with the following resolutions:

Resolved, That the assessment for the present year shall be three dollars.

Resolved, That those delegates who pay the assessment shall be entitled to one copy of the Transactions for the present year, and that the payment of two dollars in addition shall entitle them to two additional copies.

Resolved, That the permanent members shall be entitled to one copy of the Transactions for the present year, on the payment of two dollars, and three copies on the payment of five dollars.

Resolved, That the societies which have been represented in the Association shall be entitled to copies, for their members, on the same terms that copies are furnished to permanent members.

Resolved, That permanent members, unless present at the meeting as delegates, shall not be subject to any assessment.

Resolved, That the several committees be requested to bring to the meeting of the Association their reports correctly and legibly transcribed, and that they be required to hand them to the Secretaries as soon as they have been read.

The report was accepted, and referred to the Committee on Publication.

The resolutions were considered *seriatim*, and adopted.

On motion of Dr. Drake, of Ohio, the report of the Committee on Surgery was called for.

Dr. Paul F. Eve, of Ga., chairman of the Committee on Surgery, presented and read the report of the committee, which, on motion, was accepted and referred to the Committee on Publication.

The Secretary informed the Association that he had received from Dr. Flint, of New-York, chairman of the Com-

mittee on Practical Medicine, a printed copy of the report of the committee, three hundred of which had also been sent for distribution among the members of the Association.

On motion of Dr. Hays, of Penn., the report was read by its title, and referred to the Committee on Publication.

The Association then adjourned to 5 P. M.

Afternoon Session.

The President in the chair.

Dr. Boyle, of the Dist. of Columbia, invited the Association, in the name of the Medical Society of the District of Columbia, to hold its next annual meeting in the city of Washington. Drs. C. P. Johnson and P. C. Gooch, of Va., presented similar invitations from the Medical Department of Hampden Sydney College and the Medical Society of Virginia, to meet in Richmond, Va. Dr. James Jones, of Louisiana, presented an invitation of like purport from the Medical Faculty of the University of Louisiana, to hold its next session in New-Orleans, La.

Dr. Reyburn, of Missouri, urged the claims of St. Louis as the next place of meeting.

On motion, these several invitations were referred to the Committee on nominations.

On motion of Dr. Parsons, of Rhode Island, the Committee on Nominations were requested to make the appointment of the several standing committees. Drs. N. B. Ives, of Conn., and N. S. Davis, of Ill's, were added to the Committee on Nominations, these States not having been previously represented. Dr. Jones, of Louisiana, declined serving on the committee, and Dr. E. D. Fenner was appointed, by the delegation of the State, in his stead.

On motion of Dr. Wragg, of S. C., the reports of the Committee on Prize Essays, and of Obstetrics, were made the special order of the evening session.

The Secretary presented and read the report of the Committee on Prize Essays. The committee awarded the prize for successful authorship to Dr. John C. Dalton, Jr., of Boston, author of the essay "On the Corpus Luteum of Menstruation and Pregnancy," recommending that the essay be published in the Transactions of the Association. On motion, the report was accepted and referred to the Committee on Publication.

Dr. Storer, of Massachusetts, the chairman of the Committee on Obstetrics, presented and read the report of the committee. Dr. Robinson, of S. C., moved the report to be re-committed to the committee. After some discussion, this resolution was adopted. The report was recommitted and made the special order for the morning session.

The Association then adjourned to 10 A. M., of Thursday.

MAY 8TH—*Morning Session.*

The President, Dr. Moultrie, in the chair.

The minutes of the last meeting were read and confirmed.

Dr. J. N. Smith, of Mass., moved that the report of the committee on Medical Education be made the special order, after the disposal of the report of the Committee on Obstetrics.

Dr. Gaillard, of S. C., on behalf of the Committee of Arrangements, read a list of the delegates registered since the last report.

Dr. Campbell, of Georgia, placed on the table, for inspection and examination, a model of a malformation of the knee-joint, the patella of which was wanting.

Dr. G. B. Wood, of Pa., offered the following resolution:—

Resolved, That colleges, exclusively of dentistry, and pharmacy, are not recognized by this Association as among the bodies authorized to send delegates to its meetings.

Dr. J. R. Wood, of New-York, moved to amend by dividing the resolution so as to take the question—first, on the reception of delegates from colleges of dentistry, and then on the reception of delegates from colleges of pharmacy. The amendment was accepted.

The question of the reception of delegates from colleges of dentistry was then discussed by Drs. Hays, of Pa.; Z. B. Adams, of Mass.; Wood, of Penn.; Drake, of Ohio; Wood, of N. York; J. L. Atlee, of Penn.; and Bond, of Maryland.

At this stage of the discussion, Dr. Yardley, of Penn., asked and obtained leave to read the following preamble and resolutions, ordered to be laid before the Association by the Philadelphia County Medical Society.

Whereas, The Constitution of the American Medical Association, by providing for the reception of delegates from all permanently organized medical societies, medical colleges, hospitals, lunatic asylums, and other permanently organized

medical institutions, unjustly favors the profession in cities where such institutions exist, and can be readily formed, and diminishes the importance and thereby discourages the formation of county medical societies in rural districts, therefore,

Resolved, That the Constitution of said Association should be altered so as to admit only delegates from county or state medical societies.

Resolved, That a copy of the preceding preamble and resolution, signed by the President and Secretary of this Society, be transmitted to the Association at its next session.

[Signed.] SAMUEL JACKSON, Pres't,
D. FRANCIS CONDIE, Sec'y.

PHILADELPHIA, April 25th, 1851.

The preamble and resolution having been read, Dr. Lamb, of Penn., moved to lay the whole subject on the table, which motion was lost. The discussion was then resumed by Drs. Hays, of Penn., Atlee, of Penn., Drake, of Ohio, Wood, of Penn., and Bond, of Maryland.

Dr. J. L. Atlee, of Penn, moved that the whole subject of delegates from colleges of dentistry and pharmacy be referred to a committee consisting of five members, with instructions to report whether some more equitable plan of representation than the present one cannot be devised. This resolution was adopted. On motion of Dr. Yardley, of Penn., the preamble and resolutions of the Philadelphia County Medical Society were referred to the same committee.

Dr. Jones, of N. C., offered the following resolution:

Resolved, That all the Medical Colleges in the U. States are hereby earnestly and respectfully requested to hold a convention through delegates respectively chosen by them, a least once in every six years, to take into consideration the proper method of harmoniously elevating the standard of medical education in said colleges.

The Secretary read a letter and some documents placed on the table, which, on motion of Dr. C. Hooker, of Conn., were referred to the Indiana delegation, with instructions to report at 1 o'clock P. M.

The report of the Committee on obstetrics being the special order, Dr. Storer, of Mass., chairman of that committee, presented the report, which on motion was accepted and referred to the Committee on Publication.

Dr. J. L. Atlee, of Penn., presented to the Association, on behalf of Prof. Haldeman, of Lancaster County, Penn., an essay on Latin pronunciation, and moved that it be referred to the Committee on Medical Education.

The report of the Committee on Medical Education being now the special order, its reading was suspended to receive the report of the Nominating Committee, which was presented, read, and laid on the table.

Dr. Hays, of Penn., called up a resolution submitted by himself during the session of 1849, which, as it involved an alteration of the constitution, was laid on the table until the next session. In consequence of the absence of Dr. Hays from the session of 1850, the resolution was referred to the committee on unfinished business, to be reported on at the present session. The resolution reads as follows: (vide vol. ii. pp. 43.)

Resolved, To strike out from the Constitution of the Association all that relates to standing committees on "Medical Sciences," on "Practical Medicine," on "Surgery," on "Obstetrics," on "Medical Education," and on "Medical Literature."

This resolution was discussed by Drs. Stevens, of N. York, Drake, of Ohio, Hooker, of Conn., Wood, of Penn., and Davis, of Ill., and finally adopted.

Dr. Wood, of Penn., offered the following resolution, which was adopted:

Resolved, That a committee of seven be appointed to take into consideration the arrangement of committees for future action, to report as early as possible.

The report of the Indiana delegation, being the special order for one o'clock P. M., was presented and read. The report recommended that the letter and accompanying documents be referred to the Medical Society of the State of Indiana, for their consideration. On motion the report was accepted, and the documents directed to be sent to the Medical Society of the State of Indiana.

The report of the committee on Medical Education being now the special order, Dr. Johnson, of Missouri, moved that, as the report was a long one, and the hour late, the reading of the report be made the special order for the evening session, and the report of the Committee on Medical Literature be called up in its stead. The motion was adopted.

Dr. Reyburn, of Missouri, chairman of the Committee on

Medical Literature, presented and read the report of the committee. In the course of his report, he gave way to a motion to adjourn.

Before the adjournment, the Secretary announced that Dr. N. S. Davis, of Illinois, had prepared a paper entitled, "An Experimental Inquiry concerning some points connected with the Process of Assimilation and Nutrition."

On motion of Dr. Stephenson, of New-York, Dr. Davis was requested to read his paper after the reports of the standing committees had been read and disposed of.

The Association then Adjourned to five o'clock P. M.

Afternoon Session.

The President, Dr. Moultrie, in the chair.

The President announced that he had appointed Drs. Hays, of Penn., Stevens, of N. Y., Yardley, of Penn., Storer, of Mass., and Jones, of N. C., the committee under Dr. Wood's resolution, to inquire into the constitutionality of receiving delegates from colleges of dentistry and pharmacy; also that he had appointed Drs. G. B. Wood, of Penn., Drake, of Ohio, Stevens, of N. Y., Hooker, of Conn., Adams, of Mass., B. R. Wellford, of Va., and Dickson, of S. C., the committee under Dr. Wood's resolution to appoint special committees in place of the standing committees abolished by the adoption of Dr. Hays' resolution.

Dr. Dickson, of S. C., asked and obtained leave, before proceeding with the special order, to introduce the following preamble and resolutions:—

Whereas, efforts are being made to repeal the law of 1847, which confers protective rank on the members of the Medical Department of the Army: Therefore,

Resolved, That the American Medical Association views with regret the existence of hostility to the act of Congress approved February 11th, 1847, which confers legal rights, and equality with other staff departments, on the Medical Officers of the Army, and gives them a position to which the character and importance of the profession entitles them.

Resolved, That copies of these resolutions, with the resolutions of the Association passed at its last annual meeting, on the same subject, be transmitted to the Secretary of War, and of the Navy, also to the Chiefs of the Medical Department of each service, and to the presiding officer of the Senate and House of Representatives of the United States.

The resolutions were seconded by Dr. Lebby, of S. C., and unanimously adopted.

Dr. Reyburn, chairman of the Committee on Medical Literature, completed the reading of the report of the committee, and concluded with the following resolution:—

Resolved, That a special committee be appointed to take into consideration that portion of this report which refers to the organization of a society for the reception and discussion of original scientific papers, and that said committee be and is hereby instructed to present the details of a plan, if deemed by them expedient, for such a society or section at the next annual meeting.

On motion of Dr. Lamb, of Penn, the report was accepted and referred to the Committee on Publication, and the resolution was referred to the Committee on the Organization of the Association, appointed under Dr. Wood's resolution.

The report of of the Committee on Medical Education being now the special order, it was moved that that part of the report relating to demonstrative midwifery, referred to the committee by resolution of the Association at its last meeting, be now read, and the remainder of the report be made the special order of the morning session. The motion was adopted.

Dr. Hooker, of Conn., chairman of the Committee on Medical Education, then presented and read the report of the committee on demonstrative midwifery. On motion the report was accepted and referred to the Committee on Publication.

Dr. Dickson, of S. C., then offered the following resolution, which was unanimously adopted:

Resolved, That this Association unanimously approve the opinion expressed in the report of the committee on Medical Education in respect to demonstrative midwifery.

The Association then adjourned to ten o'clock A. M. of Friday.

MAY 9TH—*Morning Session.*

The President, Dr. Moultrie in the chair.

The minutes of the last meeting were read and confirmed.

Dr. Stevens, of N. Y., asked and obtained a suspension of the special order, which was the report of the Committee on Medical Education, to enable him to present the following resolutions:

Resolved, That the members of this Association cannot

separate without expressing their grateful sense of the hospitalities and numerous delicate attentions received from their medical brethren of South Carolina, and the citizens of Charleston.

Resolved, That a committee of three be formed to procure a tablet, with a suitable inscription commemorative of this meeting, and of the feelings it has elicited, to be placed at the disposal of the Medical Association of the State of South Carolina.

The inscription on the label to be as follows:—

“This tablet is here placed by the American Medical Association, to commemorate their annual meeting in the city of Charleston, in May, 1851, and to signalize their gratitude for the extraordinary professional and social enjoyment that accompanied it.”

The resolutions were seconded by F. A. Ramsey, of Tenn., and adopted. Drs. G. Hayward, of Mass.; Stevens, of N. Y.; and Ramsey, of Tenn., were appointed the committee.

Dr. Ramsey, of Tenn., asked and obtained a further suspension of the rules, to read a letter from Dr. E. D. Fenner, in relation to his annual publication of a volume of “Reports on the Diseases of the Southern States.” The letter was read and Dr. Ramsey, of Tenn., offered the following resolution, which was adopted:

Resolved, That the effort of Dr. Fenner to place, on a firm and durable basis, an annual publication embracing medical reports from the whole Southern portion of the Union, merits the commendation of this Association, and should receive solid support from American physicians.

Dr. Hays, of Penn., asked and obtained leave to call up so much of the report of the nominating committee as recommends a place for the next meeting of the Association, and nominates the Committees of Arrangement and Publication. The report was read as follows:

The Committee of Nominations beg leave to report that they recommend, as the place for the next meeting of the Association, Richmond, Va.

They report, also, the following committees for the confirmation of the meeting:

Committee of Arrangements.—Drs. R. W. Haxall, Va., ch'n; C. P. Johnson, Va.; C. B. Gibson, Va.; J. Beale, Va.; C. S. Mills, Va.; S. Mupas, Va.; R. D. Haskins, Va.; M. P. Scott, Va.

Committee on Publication.—Drs. Isaac Hays, of Penn, ch'n; G. Emerson, Penn., D. F. Condie, Penn.; H. W. De Saussure, S. C.; Isaac Parrish, Penn.; G. W. Norris, Penn.; P. C. Gooch, Virginia.

Dr. Drake, of Ohio, made an urgent appeal in favor of Washington City, the as next place of meeting. On motion of Dr. Johnson, of Va., the report appointing Richmond, Va., as the next place of meeting, was adopted, and the nominations of the Committees of Arrangement and Publication were confirmed.

Dr. Hooker, chairman of the Committee of Medical Education, completed the reading of the report of the committee, concluding it with the following resolutions:

Resolved, That the abuses which exist in the modes of medical education pursued in this country demand the serious consideration of the profession.

Resolved, That free discussion in relation to the causes is an important means of effecting their removal.

Resolved, That in the opinion of this Association, no effort to remove these abuses can succeed that is not based upon a reform in the the public sentiment both of the profession and of the community.

Resolved, That this reform, so far as the profession is concerned, is to be effected mainly through its organization, and that it is, therefore, incumbent upon every physician to do all that he can to give them character and efficiency.

Resolved, That this Association have confidence in all proper efforts which have for their object a reform in the sentiment and practice of the community, in relation to medicine and the medical profession.

Resolved, That the recommendations of this Association, at its former meetings, in regard to education, both preliminary and medical, be affirmed, and that both the schools and private preceptors be still urged so to do their duty as to secure to the community a well-educated profession.

Resolved, That in the work of medical reform, while all precipitate movements should be avoided, we should aim at a steady advance, from year to year, till a thorough system of education be established by the profession throughout our country.

Dr. G. B. Wood, of Pa., asked and obtained leave to sus-

pend the order usually observed in reports, in order to present the report of the Committee on Special Committees.

Dr. G. B. Wood, of Pa.; chairman of the committee, made the following report:

The committee to whom was referred the subject of arranging a plan of committees for future action, in place of the standing committees abolished by the Association, have the honor to report as follows:

It appears to them that the most feasible plan of accomplishing the objects of the Association, is to select certain subjects, which may be considered as suitable for investigation, and to refer these subjects to special committees, to be appointed before the close of the present session, and to report to the next. Such a selection the committee have accordingly made, and will offer to the consideration of the Association.

As an additional means of securing valuable contributions, they propose also the appointment of a committee, whose business it shall be, in the intervals between this and the next session, to receive original volunteer papers upon any subject which their authors may choose, to decide upon the merits of these papers, and to present to the Association at its next session, such of them as they may deem worthy of receiving this distinction. With a view to increase competition, they think it advisable that a prize fifty dollars, or a gold medal of that value, be awarded to each of the five papers presented to the Association, or any smaller number of them which the committee may consider the most meritorious, and the Association may resolve to publish.

In reference to the resolution presented in the report of the standing Committee on Medical Literature, and referred to present committee, they have only to observe that, as its ends will probably be most effectively obtained by the adoption of the general plan which they have already brought before the notice of the Association, they do not consider it expedient to make any further report.

As to the appointment of the special committee referred to, your committee think that the most convenient plan will be to refer to a special committee the nomination of a chairman for each, who shall then select, at his convenience, two individuals to aid him, with this restriction only, that the persons so selected shall be members of the Association.

To the Same Nominating Committee may be referred the appointment of the general committee, whose business will be to receive and judge of volunteer papers. As the members of this general committee must frequently compare opinions, it will be desirable that they should reside near each other; and it is accordingly proposed that they should be chosen from one neighborhood. If the plan be found to work well, this locality may be changed every year, so that each section of the Union may, in its turn, be charged with this duty. The committee would suggest that the general committee should be first chosen from members of the Association residing in Boston, or its neighborhood, as the most northern point.

To embody these suggestions in due form, the committee the following resolutions:

I. Resolved, That committees of three be appointed to investigate and report severally on the following subjects:

- 1st. Causes of the tubercular diathesis.
- 2d. Blending and conversion of the types of fever.
- 3d. The mutual relations of yellow fever and bilious remittent fever.
- 4th. Epidemic erysipelas.
- 5th. Acute and chronic diseases of the neck of the uterus.
- 6th. Dengue.
- 7th. The milk sickness, so called.
- 8th. Endemic prevalence of tetanus.
- 9th. Diseases of parasitic origin.
- 10th. Physiological peculiarities and diseases of negroes.
- 11th. The action of water on lead pipes, and the diseases which proceed from it.
- 12th. The alkaloids which may be substituted for quinia.
- 13th. Permanent cure of reducible hernia.
- 14th. Results of surgical operations for the relief of malignant diseases.
- 15th. Statistics of operations for removal of stone in the bladder.
- 16th. Cold water dressings.
- 17th. The sanitary principles applicable to the construction of dwellings.
- 18th. The toxicological and medicinal properties of our cryptogamic plants.
- 19th. Agency of the refrigeration produced through upward radiation as an exciting cause of disease.

20th. Epidemic diseases of New-England and New-York.

21st. Ditto, ditto, Pennsylvania, New Jersey, Delaware and Maryland.

22d. Ditto, ditto, Virginia and North Carolina.

23d. Ditto, ditto, South Carolina, Georgia, Florida and Alabama.

24th. Ditto, ditto, Mississippi, Louisiana, Texas, and Arkansas.

25th. Ditto, ditto, Tennessee and Kentucky.

26th. Ditto, ditto, Missouri, Illinois, Iowa, and Wisconsin.

27th. Ditto, ditto, Indiana, Ohio, and Michigan.

II. Resolved, That a *Committee of Nomination* be appointed, whose duty it shall be to nominate one chairman for each of the above committees.

III. Resolved, That each of the chairmen thus nominated shall select, at his earliest convenience, two members of the Association to complete the committee.

IV. Resolved, That a committee of five members be appointed, to be called the *Committee for Volunteer Communications*, whose duty it shall be, in the interval between the present and the next succeeding sessions, to receive papers upon any subject, from any persons who may choose to send them, to decide upon the merits of these papers, and to select for presentation to the Association, at its next session, such as they may deem worthy of being thus presented.

V. Resolved that the *Committee for Volunteer Communications* shall have the power to form such regulations as to the mode in which the papers are to be presented, and as to the observing of secrecy, or otherwise, as they may think proper.

VI. Resolved, That the selection of the members of this committee be referred to the same Nominating Committee, whose duty it will be to appoint the chairman of the several special committees, as above directed, with this restriction, that the individuals composing it shall reside in the same neighborhood.

VII. Resolved, That a prize of fifty dollars be awarded to each of the volunteer communications reported on favorably by the committee, and directed by the Association to be published, provided that the number to which the prize is thus awarded do not exceed five; and provided, also, if the number approved and directed to be published, exceed five, that, in

such case, the prize be awarded to the five which the committee may determine to be most meritorious. All of which is respectfully submitted.

GEO. B. WOOD, Chairman.

CHARLESTON, May 9th, 1851.

On motion of Dr. Huston, of Penn., the report was accepted, and the resolutions proposed by the committee were adopted.

On motion of Dr. La Roche, of Penn., the same committee were requested to make the nominations for the several special committees organized under their report.

On motion of Dr. Stevens, of New-York, it was

Resolved, That other committees may be added to those already proposed by the committee, if deemed by them advisable or necessary.

On motion of Dr. Phelps, of New-York, the report of the Committee on Medical Education was accepted, and referred to the Committee on Medical Education, and the resolutions appended to the report concurred in by the Association.

Dr. J. L. Atlee, of Pennsylvania, offered the following resolution, which was adopted.

Resolved, That it be recommended to the several State Medical Societies throughout the Union, to procure a republication of the Report of the Committee on Medical Education, for general distribution among the profession.

Dr. Hays, of Pennsylvania, gave notice that at the next meeting of the Association, he should propose an amendment to the sixth article of the Constitution, line No. 9, so as to read \$10, instead of \$3.

Dr. Drake, of Ohio, then offered the following resolution:

Resolved, That in the opinion of this Association, the students of our schools should be required to matriculate within the first — days after the opening of the session, and continue their attendance to the end of the term, taking with them evidence of the same, to be presented with the tickets of the professors, when they become candidates for degrees.

This resolution was seconded by Dr. W. Hooker, of Conn., discussed by Drs. Burrows, of Penn.; Hooker, of Conn.; F. A. Ramsay, of Tenn.; Gibson, of Penn.; Drake of Ohio; Huston, of Penn.; and finally adopted, the blank between the words "first" and "days" being unfilled.

The report of the Committee on Medical Sciences being the business next in order, the secretary read a letter from Dr. Bennet Dowler, of Louisiana, chairman of the committee, regretting his inability to be present at the meeting of the Association, and presenting the report through Dr. Fenner.

Dr. Fenner, of Louisiana, read the outlines of the report of the Committee on Medical Sciences, and requested permission, in behalf of Dr. Dowler, to retain the same for revision and copy. On motion, the report was accepted, and referred to the Committee on Publication.

On motion of Dr. Phelps, of New-York, it was

Resolved, That, if a copy of the report of the Committee on Medical Sciences was not forwarded in time, the Committee on Publication be instructed not to delay the issue of the Transactions in consequence.

Dr. Mauran, of New-York, asked and obtained a suspension of the order of business, in order to present the following resolution, which was adopted:

Resolved, that the Committee on Publication be instructed to print conspicuously, at the beginning of the forthcoming volume of the "Transactions," the following disclaimer, viz: The American Medical Association, although formally accepting and publishing the Reports of the various Standing Committees, holds itself wholly irresponsible for the opinions, theories, or criticisms therein contained, except when so decided by special resolution.

Dr. Storer, of Massachusetts, then offered the following resolution, which was unanimously adopted:

Resolved, That the hearty thanks of this Association be presented to their late Secretary, Alfred Stille, M.D., for his constant unwearied, and invaluable services, since its first organization.

Dr. N. B. Ives, Chairman of the Committee on Adulterated Drugs, presented the report of the committee, which was read by the Secretary. A motion to refer to the Committee on Publication was debated by Drs. Gurthrie, of N. Y.; Gooch, of Va.; Ives, of Conn.; Davis, of N. Y.; Houston and Hays, of Penn.; and finally lost. On motion Dr. Davis, of N. Y.; the report was accepted and laid on the table.

Dr. Gaillard, of S. C., chairman of the Committee on Hygiene, presented the report of the committee, and read an abstract of its contents. On motion of Dr. Hays, of Penn., the

report was accepted, and referred to the Committee on Publication, with authority to print with it a paper now in preparation on the mortuary statistics of some of the larger cities.

Dr. Drake, of Ohio, offered the following amendments to the constitution, which were read and laid on the table under the rule:

"All "members by invitation" must be nominated in writing by five members of the Association, whose names shall be recorded on the minutes; when elected, they shall enjoy all the rights and privileges of delegates, and remain permanent members of the Association.

All permanent members shall be entitled to vote, and when they attend a meeting of the Association, their respective names, shall be registered, and each shall pay the sum required from a delegate.

The Secretary read a protest from the Iowa University against the representation of the Rush Medical College in this Association.

[This protest was made on the ground that Rush Medical College reduced the fees for tuition, as it asserted to the injury of neighboring schools.

We are informed by Prof. Davis, who was present when it was presented, that there was a pretty general and free expression of opinion that it was a matter with which the Association could have nothing to do; yet to dispose of the thing for the time, it was referred, and rests in the hands of the committee until next year.]

Dr. Jervy, of South Carolina, moved that the protest be referred to a select committee. This motion was discussed by Drs. Huston, of Penn.; Grimshaw, of Delaware; Gaillard, of S. C.; Davis, of N. Y.; Dickson, of S. C., Wood, of Penn.; Adams, of Mass.; Emerson, of Penn.; and finally withdrawn.

Dr. Wood, of Penn., then moved to refer the protest to the Committee on the Organization of the Association, appointed under Dr. Wood's Resolution. This motion was seconded by Dr. Huston, and adopted.

Dr. Wood, of Penn., read the following report of the committee appointed to nominate the chairman of the several special committees.

The committee to whom was referred the nomination of the chairman of the several special committees to report at the next session, and also the *Committee for Volunteer Communica-*

tions, report that they have fulfilled the object of their appointment, and offer the following list of chairmen to the committees first referred to, viz:

1. Dr. D. F. Condie, of Philadelphia, chairman to the Committee on the Causes of the Tubercular Diathesis.
2. S. H. Dickson, of Charleston, S. C., on the Blending and Conversion of the Types of Fever.
3. James Jones, of New Orleans, on the Mutual Relations of Yellow and Billious Remittent Fever.
4. J. B. Johnson, of St. Louis, Missouri, on Epidemic Erysipelas.
5. Charles D. Meigs, of Philadelphia, Acute and Chronic Diseases of the Neck of the Uterus.
6. J. P. Jervey, of Charleston, S. C., on Dengue.
7. Daniel Drake, of Cincinnati, Milk Sickness, so called.
8. Lopez, Mobile, Alabama, Endemic, Prevalence of Tetanus.
9. Geo. B. Wood, of Philadelphia, on Diseases of Parasitic Origin.
10. R. D. Arnold, Savannah, Georgia, on the Physiological Peculiarities and diseases of Negroes.
11. Horatio Adams, of Waltham, Mass., on the Action of Water on Lead Pipes, and the diseases which proceed from it.
12. Joseph Carson, Philadelphia, on the Alkaloids which may be substituted for Quinia.
13. George Hayward, Boston, Mass., on the Permanent Cure of Reducible Hernia.
14. S. D. Gross, Louisville, Ky., on Results of Surgical operations for the relief of malignant diseases.
15. J. R. Wood, New York, Statistics of the operation for the removal of Stone in the Bladder.
15. Charles A. Pope, St. Louis, Missouri, Water, its Topical uses in Surgery.
17. Alexander H. Stevens, New York, Sanitary principles in the construction of dwellings.
18. Porcher, Charleston, S. C., Toxicological and Medicinal properties of cryptogamic plants.
19. G. Emerson, Philadelphia, Agency of the refrigeration produced through upward radiation of Heat as an exciting cause of disease.
20. W. Hooker, Conn., on the Epidemics of New England and New-York.

21. J. L. Atlee, Lancaster, Penn., on the Epidemics of New Jersey, Pennsylvania, Delaware, and Maryland.

22. R. W. Haxall, Richmond, Va., on the Epidemics of Virginia and North Carolina.

23. Wm. M. Boling, Montgomery, Ala., on the Epidemics of South Carolina, Georgia, Florida, and Alabama.

24. E. H. Barton, La., on the Epidemics of Mississippi, Louisiana, Texas, and Arkansas.

25. Sutton, Georgetown, Ky., on the Epidemics of Kentucky and Tennessee.

26. Thos. Reyburn, Missouri, on the Epidemics of Missouri, Illinois, Iowa, and Wisconsin.

27. George Mendenhall, Ohio, on the Epidemics of Ohio, Indiana, and Michigan.

The following gentlemen were appointed a *Committee for Volunteer Communications*, viz: Drs. George Hayward, J. B. S. Jackson, D. H. Storer, and Jacob Bigelow, of Boston; and Dr. Usher Parsons, of Providence, R. I.

Signed on behalf of the Committee.

GEORGE B. WOOD, Chairman.

CHARLESTON, Friday, May 9th, 1851.

On motion, the report was accepted, and the nominations confirmed.

The president read an invitation from Committee of Reception of the South Carolina Medical Association to the delegates, to a steamboat excursion on the Cooper and Ashley rivers, after the adjournment of the Association.

Dr. McIntyre, of New York, moved that this Association recommend to the several State Societies the republication of the Code of Ethics and Constitution of this Association for distribution among their members; the motion was adopted.

Dr. Grimshaw, of Delaware; offered the following resolution:

Resolved, That Medical Colleges, in publishing statements of the number of Medical and Surgical cases treated at their dispensaries, act contrary to the spirit of the Code of Ethics adopted by this body. The resolution was seconded by Dr. Wood, of N. Y., debated, and finally laid on the table for future consideration.

The Association then adjourned to 5 o'clock P. M.

Afternoon Session.

The Vice-President, Dr. Welford, in the chair.

The special order for the afternoon session was called up, and Dr. Davis, of Illinois, read his paper entitled "An Experimental Inquiry concerning some points connected with the Process of Assimilation and Nutrition." On motion of Dr. Grimshaw, the thanks of the Association were presented to Dr. Davis for the paper just presented by him.

Dr. F. A. Ramsey, of Tenn., offered the following resolution:

Resolved, That the professors of the medical colleges be recommended to require all candidates for graduation to attend at least two full courses of lectures. This resolution was seconded, debated, and finally rejected.

Dr. Grimshaw, of Delaware, called up as unfinished business, the resolution offered yesterday by Dr. Jones, of N. C., and not then acted upon, to which he offered the following amendment: "And that the first convention be held before the first of May, 1852." The question being taken on the resolution and the amendment, they were both laid on the table.

Dr. Phelps, of N. Y., offered the following amendment to the constitution, which, under the rule, lies over to the next meeting of the Association: "In article 2, p. 60, in the last line but one from the bottom of the page, insert between the words 'endeavors' and 'to carry,' 'in reliance on divine guidance and support.' The passage will then read thus, 'and use our endeavors, in reliance on divine guidance and support, to carry into effect,' etc., etc."

Dr. Phelps, of N. Y., offered the following resolutions, which were adopted Unanimously.

Resolved, That the warmest thanks of the Association be tendered to the trustees of St. Andrew's Society for the gratuitous use of their very convenient and eligible hall, and to all those other institutions and reading-rooms which have been so freely thrown open to the inspection and use of the delegates.

Resolved, That the Committee of Reception and Arrangements receive our most grateful acknowledgments for the very handsome manner in which they have provided for the reception and entertainment of the delegates from abroad during their sojourn in the city of Charleston.

Resolved, That not only the medical profession, but the citizens generally, by private and public hospitality, have united in the manifestations of that urbanity of manner, and that unwearied and kind attention, which commands not only our profound admiration, but will be followed by the most pleasing recollections so long as life and thought shall endure.

On motion of Dr. Stevens, of N. Y., the above resolutions, and those of a similar purport adopted at the morning session, were ordered to be published in the Charleston papers.

On motion of Dr. Johnson, of Missouri, the Association adjourned *sine die*.

The Vice-President, Dr. Welford, of Va., then congratulated the Association on the happy termination of its labors, and declared the meeting adjourned.—*Medical News*.

ARTICLE II.

On the Office of the Lacteals in the Absorption of Alimentary Matters:—By M. CLAUDE BERNARD.—(Extract by the Author.)

Physiologists have not distinguished by a peculiar name the nutritive matters which absorbed from the intestinal canal, are carried to the liver with the blood of the *vena porta*; while they designate especially, by the name of *chyle*, those products only which are absorbed by the *lacteals*.

These lympho-chyliferous vessels, that is to say, those which have the property of absorbing *emulsionised* fatty matters, belong exclusively to the small intestines; they are called *lacteal* vessels, because, during digestion, they often contain emulsive liquid similar to milk, which renders them very apparent. It is this latter circumstance which enables us to discover these vessels, and which, without doubt, caused to be attributed to them special function in the absorption of alimentary substances; but this function has not been accurately defined, and there is nothing to justify, as I hope to demonstrate, the extreme importance which physiologists have given, for a great length of time, to the chyme, by considering this liquid the principal result of digestion, and the quintessence, as it were, of all sorts of food.

The object which I propose to myself to attain in this work, is to ascertain, by direct experiment, the nature of the nutritive principles which are absorbed and carried exclusively by the chyliferous vessels. These researches have appeared to me to be important, in order to define the signification of the word *chyle*, and to determine whether there really were any alimentary substances which entirely escaped venous absorption, and, consequently, evaded the passage through the liver in their course to the lungs.

I. *Of the absorption of sugar by the chyliferous vessels.*—Saccharine matter is absorbed in the intestines, sometimes in the state of glucose, sometimes in that of cane sugar.* On introducing into the stomachs of different mammiferous animals, (dogs, cats, or rabbits,) large quantities of cane sugar, I have always discovered this substance in the blood of the vena porta; but on collecting the chyle in the thoracic duct of the same animals and in the same circumstances, I have never recognised the presence of cane sugar;† so that we demonstrate in this experiment, which I have often repeated, the singular fact that sugar is not sensibly absorbed by the chyliferous apparatus.

From the preceding facts it will be seen that, in the digestive canal, sugar is exclusively absorbed by the system of the vena porta, and that, consequently, saccharine matter must traverse the liver before it is carried to the lungs. We can prove also, by decisive experiments, that the passage of cane sugar through the hepatic tissue causes it to undergo a modification which is very important in a physiological point of view. In fact, we have stated that if we inject into the general venous system of a dog, by any vein on the surface of the body, a solution of two or three grammes of cane sugar, we find, that instead of being assimilated, this substance is discharged in a short time by the urinary secretion; if on the contrary we make the same injection by a branch of the vena porta, so that the saccharine matter is obliged to pass through the liver before getting into the general venous system, we observe

* The acid of the gastric juice may, as I have demonstrated elsewhere, transform a small quantity of cane sugar into glucose; but when the cane sugar is in abundance, the greater part is absorbed without modification.

† We find there some traces of grape sugar, (glucose,) which are derived from the lymphatics of the liver, as I have ascertained.

that the sugar is not eliminated, but that it remains and is assimilated in the blood, precisely as is the case when its absorption is effected in the normal process of digestion. It will hence be easily perceived that the absorption of sugar by the portal venous system is a necessary condition to its assimilation; for if it be conveyed by the chyloferous vessels, the saccharine principle, not having been submitted to the influence of the liver, is diffused directly throughout the general venous system, precisely as is the case when it is injected into the jugular vein.

2. *Of the absorption of albumine by the chyloferous vessels.*

No observer has, I think, proved satisfactorily, that the chyle contains a greater quantity of albumine in animals which digest that substance exclusively. It would be, besides, almost impossible to conclude, from these results alone, that albuminous matter is not absorbed by the lacteals; for the determination of the quantity of albumine, according to the various modes of alimentation, would be exceedingly difficult, because the blood and the lymph naturally contain a large proportion of this principle. I have thought that a more decisive physiological argument might be brought to bear upon this question, if we could be able to demonstrate that, in order to be assimilated, albumine must, like cane sugar, traverse the tissue of the liver. In fact, on injecting into the jugular vein of a dog or a rabbit, a little albumine of egg diluted with water,* we observe some time after the injection, that the urine has become albuminous. This experiment is interesting, because it proves that the albumine of the egg is not probably identical with the albumine of the blood, and that it is necessary, in order that it may be appropriated to the organism, that it should undergo a preliminary modification. Now the passage through the tissue of the liver suffices to effect this modification which is necessary to the assimilation of the albuminous matter; for if we inject it by the vena porta, it remains in the blood, and is not to be discovered in the urinary excretion. These experiments evidently tend to demonstrate that albumine is absorbed exclusively by the vena porta, for if this substance is carried into the sub-clavian vein

* Without this precaution, the albumine of the white of egg, would be too viscid, and would cause the death of the animal, by being arrested in the lungs, as is shown by M. Magendie.

by the thoracic duct, it would be introduced directly into the general venous system, and be precisely in the condition of that injected by the jugular vein, in the case cited above.

3. *Of the absorption of fatty matters by the chyliiferous vessels.*—In the mammiferæ, fatty substances are absorbed in the most evident manner by the chyliiferous vessels, and poured into the blood by the thoracic duct. Chemical analysis and microscopical inspection of the contents of the chyliiferous apparatus, leave no doubt upon that subject. In a preceding *memoire* I have shown after M. Magendie and some other physiologists, that the neutral fatty matters of the food, in order to be rendered fit to be absorbed into the chyliiferous vessels, must first undergo the *emulsionising* influence of the pancreatic juice, so that the absorption of fat cannot begin to take place in the small intestines until after the effusion of the pancreatic fluid, while albumine and sugar may be absorbed even from the stomach. We know that as soon as the emulsionised fat penetrates into the chyliiferous vessels, their appearance completely changes; instead of remaining transparent, like all the other lymphatics of the body, their contents present a whitish milky appearance, quite characteristic, and in consequence of the transparency of the vessels, we may follow with the eye the course of the fatty matter from the small intestine to the left sub-clavian vein, where it is poured out by the thoracic duct.

It may rationally be supposed, from the preceding facts, that in order to remain in the blood and to be assimilated, it is not necessary for fatty matters to traverse the liver. Such indeed seems to be the fact. I have often injected into the jugular vein, in large quantity, divers fatty substances, (butter, oil, lard,) which I had previously *emulsionised* with pancreatic juice obtained from dogs, and I have never observed the urine to contain fat, or to become chylous after these injections.

It would seem then to be proper to divide the products of digestion into two groupes, according to their mode of absorption.

1st. Saccharine and albuminous matters, absorbed exclusively by the vena porta, and necessarily traversing the liver before arriving at the lungs.

2d. Fatty matters absorbed by the chyliiferous vessels, and passing into the general venous system and the lungs without previously going through the liver.

This latter proposition ought not to be taken in as absolute a sense as the former, for microscopic inspection and experiments have demonstrated that fat is absorbed both by the vena porta and the lacteals. When we examine, in a dog who is digesting fatty matter, the contents of the thoracic duct and the blood of the vena porta, we observe that these two liquids contain nearly equal quantities of *emulsionised* fat; only it is much less visible in the blood because of its color. But if we allow it to coagulate, and the serum to separate, we notice that it is rendered opake and whitish like milk, by the emulsionised fat which it holds in suspension.

Moreover, if we attribute to the chyliferous system a considerable office in the absorption of fat in mammiferous animals, it is not the same in many birds, in whom it is impossible, as is known, to discover any kind of chyliferous—lymphatics, *i. e.*—any whitish lymphatic vessels filled with fatty emulsion. I have caused pigeons, chickens, hawks, &c., to swallow fatty substances, and on sacrificing these animals, when in the act of digestion, have never found the least whitish or chylous appearance in their intestinal lymphatics, while the blood of the vena porta contained much emulsion of fat.

In conclusion; there is then but one substance (fat) the absorption of which takes place evidently by the lacteal system; and in some animals, which digest fat very well, even this is not observed. From which I conclude that the *chyle* cannot be considered a liquid in which is concentrated all the nutritive principles of the food.—*Transylvania Med. Journal.*

ARTICLE III.

SAMUEL GEORGE MORTON, M. D.

It is with the greatest regret that we record the death of Samuel G. Morton, M. D., which took place in this city, on the 15th of May last. Although in feeble health for many years past, and evidently holding life by a very slight tenure, Dr. Morton was in the discharge of his ordinary professional duties up to the period of his last illness, which was of only

four days' duration. His final attack was of an apoplectic nature; but he had long labored under considerable disease of the lungs and heart, as will be seen from the autopsy, appended to our notice, for the details of which we are indebted to Dr. Neill.

The death of Dr. Morton deprives our profession of one of its most distinguished members, and abruptly terminates a scientific career, which had become one of the brightest illustrations of our country. His reputation as a naturalist was diffused throughout the world, and we believe that no cotemporary American name was better known abroad than his. His loss, in every respect to be lamented, will be particularly felt in the department of natural history, in which he was prosecuting the most interesting researches, when thus prematurely cut off, at the age of 52, in the prime of mental vigor and usefulness. In the relations of private life, no one ever conciliated more universal esteem and affection than Dr. Morton. He passed through the world literally without an enemy, beloved and respected in all circles, every where deservedly regarded as one of the most amiable and irreproachable of men.

Dr. Morton was a native of Philadelphia, but, we learn, passed a portion of his youth in New York. He pursued his medical studies in the University of Pennsylvania, and in the office of the late Dr. Parrish. After graduating in the University of Pennsylvania, he spent several years in Europe, and received a second degree from the University of Edinburgh.

Returning to his native city, Dr. Morton rapidly passed into extensive practice, and up to the time of his death, enjoyed a popularity second to none among the practitioners of Philadelphia. To the literature of his profession he made numerous valuable contributions. In 1835 he edited Macintosh's *Practice of Physic*, which went through three subsequent editions; in 1833 he published an excellent original work on *Consumption*; and in 1849 an elaborate work on *Anatomy*.

Dr. Morton, was for many years engaged as a teacher of medicine, and always ranked among our best lecturers. He gave several clinical courses in the Philadelphia Almshouse Hospital, and was Professor of Anatomy in the original organization of the Pennsylvania Medical College.

With this assiduous and unfaltering devotion to strictly pro-

fessional avocations, Dr. Morton combined an enthusiastic and earnest pursuit of natural history, which earned for him an European reputation, and gave many splendid results to science. His first scientific publication was a work on the *Fossils of the Cretaceous Group*, in which, we believe, he described every example that has been found in North America.

As far back as twenty years ago, he commenced collecting the materials, which he eventually embodied in the *Crania Americana*, the first work of the kind ever produced. This great work, published in 1839, immediately placed the author in the foremost rank among the cultivators of natural science, and was received throughout the world as a most valuable original contribution to ethnology. Its full importance is yet to be appreciated. At present it stands almost isolated; and its real value can be developed only when other races of men are studied and tabulated on a similar plan, and a comparison of the averages afforded, enables us to determine the characteristic differences between the various races.

Dr. Morton spent many years upon the *Crania Americana*, and so careful was he to produce it free from inaccuracy, that after the elaborate tables had been nearly completed—upon Mr. George Combe's pointing out a slight error in the starting point from which the measurements had been made—a new series was at once commenced, and carried through on the corrected method.

The *Crania Egyptica* followed the *Americana*. The presence of the integuments, however, and the bituminized condition of the crania, prevented any definite series of measurements.

The subject of hybridity occupied much of Dr. Morton's attention in the latter period of his life. At the time of his death he was pursuing his inquiries in several interesting and hitherto unexplored channels, connected with this important branch of natural history; and he had already collected a vast number of facts, and reached the solution of many obscure and previously unnoticed points. In this course of investigation he was led into a close examination of the specific characters of the wolves of North America, and the result of the crosses between the different species of wolves and the imported dogs—a thread of inquiry which we know was developing most valuable conclusions in the highest walks of natural science.

In the midst of these absorbing scientific and professional labors, Dr. Morton found time to indulge a taste for poetry; and his occasional effusions show that he united a fine imagination, and refined appreciation of the beautiful, with his more solid powers and attainments. And all these noble intellectual qualities were graced with the crowning attractions of a most unaffected bearing, the gentlest manners, and a genuine cordiality and kindness of disposition!

At the time of his death, Dr. Morton was President of the Academy of Natural Sciences, of which he had been a leading member for thirty years. He was also a fellow of the College of Physicians, of the American Philosophical Society and of numerous other learned societies, at home and abroad. The various associations with which he was connected in Philadelphia, united in every possible tribute of respect to his memory.

Post Mortem Examination.—On the day previous to his death, Dr. Morton was considered convalescent from an indisposition which his physicians had not supposed to be dangerous or alarming.

About the middle of the same day, a tendency to stupor was noticed, which gradually increased, and terminated in paralysis and death.

Present—Drs. Rodman, Beesley, Wistar, Pepper, McClellan and Neill.

Head—The symptoms immediately preceding death, directed attention particularly to the condition of the brain, it being supposed that effusion had taken place in that organ. The archnoid had lost its transparency, and no fluid was found in its cavity, but there was considerable serous effusion in the sub-archnoid cellular tissue.

The pia mater was very much congested, particularly on the left side, and from its vessels blood had been extravasated in several places. The basilar and vertebral arteries contained venous blood. Two small clots were found very nearly in similar positions upon either side, and rested upon the upper surface of the anterior lobe. It consisted of about one drachm of blood, and had assumed the form of the sulci, into which it had insinuated itself. The brain itself was large and symmetrical. Its substance was firm and natural in every respect. The choroid plexus was equally congested with the pia mater. Very little was found in the ventricles.

Thorax.—The pericardium contained the usual amount of serum, and presented no appearance of disease.

The heart was large and flabby, and its tissue was pallid and somewhat softened. The cavities generally were dilated; the parietes of those of the right side were particularly thin, and contained some fibrinous clots. The ostium venosum of the right side was enlarged to such a degree that it could not have been closed by the tricuspid valve. The mitral valve was much thickened by soft fibrinous yellow deposit.

The arch of the aorta was dilated and had some small patches of atheromatus matter deposited upon its internal surface.

The left lung was entirely useless for the purposes of respiration. It was contracted to a very great degree, and occupied but a small space in the upper portion of the thorax, where it was firmly bound down by the adhesion of the costal and pulmonar pleura, by which the cavity of the pleura was entirely destroyed. The congestion of the lung was so great that it appeared dark colored and solidified, although it contained sufficient air to make it float in water.

The right lung, which was unusually large, was congested and adherent to the walls of the thorax by adventitious bands of an old formation. The cavity of the pleura contained about a half pint of bloody fluid, probably the result of post-mortem changes.

These adhesions of the left pleura, and the contraction of the left lung, were produced by an inflammatory affection of these organs, which occurred a few years since.

Abdomen.—The spleen was enlarged and very much congested. The tissue was so large and pulpy that it readily yielded to pressure by the finger.

The liver was natural. The alimentary canal was not examined.

It can readily be understood from the above facts, that the immediate cause of Dr. Morton's death was *meningeal apoplexy*, resulting from that disturbance of the circulation which was manifested by the engorgement of the blood-vessels of the brain and lungs, but which was produced by dilation of the heart.—*Phil. Med. Examiner.*

ARTICLE IV.

A Case of Poisoning from Opium, successfully treated by Electro Magnetism. By J. B. BIDDLE, M. D.

The following case illustrates, I think, very strikingly, the value of the electro-magnetic current as a means of relieving the coma produced by narcotic poisoning.

At about half-past twelve o'clock of the night of the twenty-eighth of April last, I was called to visit a woman, described by the messenger as being in a fit. No history or explanation of the case could be obtained, except that the patient had gone out at about half-past seven o'clock to get something at an apothecary's for a cramp colic; that she had upon her return home eaten her supper as usual, then gone to bed, soon fallen into deep sleep, and finally, at about midnight, from her unusual respiration and the impossibility of rousing her, excited the alarm of her husband and family.

I found her in a state of profound torpor; her breathing extremely slow and interrupted, stertorous and gasping, with spasm of the throat, lividity of the countenance, inability to swallow, utter insensibility to the most violent agitation, pupil contracted to the size of a pin's head, pulse scarcely perceptible at the wrist—in short, all the symptoms of an advanced stage of asphyxia. That it was a case of narcotic poisoning, rapidly approaching a fatal termination, was, I thought, evident, and I at once so expressed myself—the family, however, still professing themselves unable to explain or account for it.

Acting, however, upon this opinion, I obtained the assistance of my friend, Dr. Goddard, who lives in the neighborhood, and the use of his electro-magnetic apparatus; and, the doctor coinciding in my view of the case, we determined, although with no very strong hope of saving the woman's life, to resort to this agent. An attempt was made to introduce the stomach tube, but was unsuccessful, owing to spasm of the pharynx, and its introduction could have been of no service, as, at the lapse of more than five hours, the poison must have been altogether absorbed from the stomach.

The electro-magnetic machine employed consists of two coils rotating between the poles of two horse-shoe magnets—

an unusually large and powerful instrument, producing a rapid succession of violent shocks. One pole was applied to the nape of the neck, the other to the pit of the stomach. For about two minutes after the battery was started no effect was produced. The patient then began to make convulsive efforts with her hands, as if to put away something annoying her, and, in perhaps half a minute more, she opened her eyes, with a ghastly stare. The battery being still kept in action, she rose up in bed, and was able to mutter some indistinct answer to questions put her.

Upon withdrawing the electric current, the woman immediately sank back into the state of torpor in which I had found her. But, as soon as it was renewed, artificial vitality was again restored. But when the current was a second time stopped, after about the same period of application as at first, the woman continued for some two or three minutes awake, gradually, however, relapsing into coma. After each application of the battery, the interval of consciousness became longer, and, at the end of two hours, she remained roused for a full half hour, in which she was able to let us know what she had taken.

It appears that she had bought "three cents" worth of laudanum, and, never having taken it before, she supposed it was a proper dose, and swallowed it all. It amounted, as she said, to some three teaspoonfuls—probably two fluid drachms, as this is, I believe, the quantity usually sold for that price. I think it probable that she was also previously somewhat under the influence of whisky, as we detected it on her breath, and this must have increased the narcotic effect of the laudanum.

We now gave her some volatile alkali, and strong coffee, but they were not long retained. After half an hour's consciousness, stupor slowly crept on again, and a further resort was had to the battery, which was followed with rapid, and, as it proved, a final revival.

The patient now got up, walked about, conversed clearly, was able to keep some coffee on her stomach, and it was apparent that she had at last struggled through the effects of the narcotic. Some disposition to somnolence remained, but this was easily overcome without recourse to the battery. I remained with her till half-past four—an hour and a half from the last application of the electricity, and then left her in

charge of her friends, directing them not to suffer her to sleep till I saw her again.

Between eight and nine I found her very comfortable and completely awake, although begging hard to be allowed a nap. Three or four hours natural sleep now took place, and left her completely recovered.

It may be worth mentioning, that in the successive application of the poles of the battery, while one was kept constantly to the nape of the neck, the other was placed indifferently at the pit of the stomach, the arm-pit, and in the hand; and the effect did not appear to vary.

Since drawing up the notes of this case, upon mentioning it to my friend, Dr. Mutter, I found that he had lately resorted to electro-magnetism with success under similar circumstances; and he kindly offered the history of his case for publication with the foregoing:

May 14th, 1851.

DEAR DOCTOR:—In accordance with your request, I send a brief outline of the case of "poisoning with opium," to which I referred in our interview the other day.

Last spring, my colleague, Prof. Pancoast, and myself, were summoned about 11 o'clock, P. M., to visit a young gentleman residing at the corner of Ninth and Market streets. On our arrival, we found that a large quantity of laudanum had been swallowed accidentally, and although strong and very appropriate means had been immediately taken by several medical students who lodged in the same house, no impression seemed to be made upon the influence of the drug. All the evidences of rapidly approaching death were manifest, and as all other measures had been unsuccessfully employed, we determined to employ *electro-magnetism*. An instrument was accordingly obtained, one pole placed upon the nape of the neck, and the other over the epigastrium. Almost on the instant, the muscles of respiration were violently agitated, and the patient sprang up in bed, opened his eyes, and answered questions. The pain in a few moments was so severe, that we were obliged to change the position of the machine. Keeping one steadily applied to the back of the neck, the other was made to touch different points of the thorax, throat, abdomen and upper extremities. The *burning* sensation occasioned by the fluid, was almost intolerable,

causing the patient to complain loudly, and effectually preventing any return to the lethargy from which he had so happily been aroused. We deemed it most prudent to continue our efforts, even after the patient was fully restored to consciousness, but I think that not more than *an hour* elapsed between the first application of the remedy and the complete relief of our young friend.

Yours truly,

THOS. D. MUTTER.

Dr. Biddle.

ARTICLE V.

Treatment of Dysentery. BY J. WATSON TULLIS, M. D. OF
TROY, OHIO.

Dysentery prevailed very extensively in Troy and its vicinity, during the latter part of the summer of 1850. It was marked by the usual symptoms of epidemic dysentery. A number of cases proved fatal, under the ordinary treatment. I mean by ordinary, the mercurial and anodyne treatment, with the occasional use of cathartics.

During previous years, I had treated dysentery according to the plan generally recommended in the books, but never with the uniformly happy result which attended an almost entirely different course of treatment, adopted by me during the last summer.

I had lost confidence in the mercurial treatment, not only from my own experience, but from the numerous concessions as to its uncertainty, on the part of those who had trusted in it.

The cathartic treatment, resorted to by almost all, so far as I know, it seems to me, is still more objectionable. Although it induces fecal evacuations, yet it does so at the expense of the delicate and inflamed mucous membrane of the bowels. The natural evacuations, thus induced, do not depend on a subsidence of the *disease*, but upon the excited contractions of the muscular coat of the bowels, upon the already inflamed and painful mucous membrane, which must inevitably ag-

gravate the pain and inflammation, and consequently increase the danger of the case. If the mucus secreted is lessened or suppressed by such treatment, it is because there is such an exaltation or organic action, as is incompatible with the process of secretion; and the mucus, or muco-bloody discharges will return, probably with increased profusion and frequency; unless, indeed, from the mildness of the disease, or the recuperative power of the system, recovery is effected in spite of the treatment.

But I will briefly present the simple treatment which I have adopted, and which I can recommend, with the utmost confidence, to my medical brethren.

I direct sulphate of morphine, in doses varying from 1-6 to 1-3 of a grain, one of which is to be taken every time the bowels are moved, provided the interval be not less than one-half hour; thus giving time for the action of the medicine, lest the patient be narcotized. I uniformly give 10 or 12 or more powders, of quantity suited to the patient. If I know nothing of the susceptibility of the patient to the action of morphine, I sometimes direct that he should begin with half-powders, repeating as above; but if not very soon relieved, to take full doses.

I never used morphine in such profusion as in our late epidemic, and yet, in an extensive practice did not narcotize a single patient. It is astonishing what an amount of morphine, in dysentery as well as in many other diseases, is tolerated by those who, under ordinary circumstances, would be readily narcotized.

Having adopted the morphine treatment during the entire period of this epidemic, and in a variety of constitutions and with, certainly, not less complications than are usually met with in dysentery, during the summer and fall months, I am inclined to prefer it very much, above any other treatment. It is safe, salutary, and free from the horrible torture incident to the mercurial and cathartic treatment.

Of course, regimen is of the utmost importance in this affection. Total abstinence from food, mucilaginous drinks, and a suitable dose of morphine after each evacuation of the bowels, will frequently effect a permanent cure, in less than twenty-four hours.

It was only in a few cases necessary to use enemata of laudanum and starch. This, however, should never be neglected, if tenesmus and tormina resist the morphine.

In all cases which resisted treatment by internal means, or were marked by unusual pain, or tenderness of the abdomen, or great prostration, or any other indication of danger, I cupped *freely and repeatedly* and with the *very happiest effect*. In an acute case of dysentery, not controllable by ordinary means the neglect of local depletion is unpardonable. Perhaps the only cases which would not recover without medical aid, are left to perish for the want of *local bleeding*, under the delusion that a *blister* is as salutary as *sacrificator* and *cups*. This delusion or opinion, is not sanctioned by any modern work extant; and yet, perhaps, more than nine-tenths of our western country practitioners, practice upon it, to the torture and sacrifice of hundreds of patients.

Warm emollient poultices, constantly applied, are of unquestionable utility, and should never be neglected in serious cases.

Blisters should never be applied in acute dysentery, because they are a thousand times more painful than cupping, and a thousand times less useful, and because when they fail, you can neither repeat the blister, nor apply cups, until the surface be healed.

In conclusion, permit me to say that, in all ordinary cases of dysentery, suitable doses of morphine, taken immediately after each dejection, with rest and abstinence from food, will effect a speedy cure. As to the severer cases of dysentery, I propose to make further observations in a subsequent article.—*Ohio Med. and Surg. Journal*.

Part 4.—Editorial and Miscellaneous

ARTICLE I.

ILLINOIS STATE MEDICAL SOCIETY.

The Illinois State Medical Society met at the City of Peoria, in the spacious court house, at 11 o'clock A. M. on the 3d of June, 1851, the President, Dr. WM. B. HERRICK, of Chicago, in the Chair. The Constitution and By-Laws were read by the Secretary.

The Committee of Arrangements reported twenty-one delegates from Auxiliary Societies and Medical Institutions within the State.

On motion of Dr. Joseph C. Frye, of Peoria, the delegates from the several counties represented were directed to select one of their number to act as a committee to nominate officers for the ensuing year.

The following gentlemen were elected that committee:

Drs. J. W. Spalding, of Stark County Medical Society; S. A. Paddock, of Upper Illinois Medical Society; H. Shoemaker, of Monroe Medical Society; E. McArthur, of Chicago Medical Society; S. Thompson, of Esculapean Medical Society; L. G. Thompson, of Upper Illinois Medical Society; A. L. McArthur, of Will County Medical Society; J. C. Fitz, of Fulton County Medical Society; C. W. Andrews, of Winnebago County Medical Society.

On motion of Dr. E. S. Cooper, of Peoria, the Society adjourned to 2 o'clock P. M.

Afternoon Session.

Dr. Wm. B. Herrick in the Chair, the Committee appointed for the purpose of nominating officers reported the following :

President.—S. THOMPSON, of Albion.

Vice Presidents.—E. M'ARTHUR, of Chicago, and T. HALL, of Stark.

Secretaries.—H. SHOEMAKER, of Monroe, and A. L. M'ARTHUR, of Joliet.

Treasurer.—R. ROUSE, of Peoria.

The report was adopted and the nominees unanimously elected.

The President elect was conducted to the Chair by the Chairman of the Committee on Nominations. He made a short and appropriate address.

On motion of Professor Herrick, Dr. Max Myers, of Chicago, was elected member by invitation.

A long and interesting discussion arose here in respect to the qualifications requisite for membership, those present expressed themselves freely upon this question, and in order to give form to their views, on motion of Dr. C. N. Andrews, the qualification of membership was referred to a Committee of five with instructions to report in the morning session.

Drs. J. C. Frye, R. Boal, Wm. B. Herrick, C. N. Andrews and S. A. Paddock were appointed that Committee.

On motion of Dr. J. C. Frye, the meeting adjourned to 8 o'clock P. M., to hear Ex-President Herrick's valedictory address.

Evening Session.

The Court House was filled with members and citizens who had been invited to attend. The address was listened to with much attention, and abounded in original thought and practical suggestions.

On motion the Society adjourned to 8 o'clock to-morrow morning.

Morning Session.

Dr. S. Thompson, President, in the chair, the Committee on the qualifications of members reported the following amendment to the constitution under article 2d. The section touching membership shall be amended so as to read as follows :

"The delegates shall receive their appointment from permanently organized Medical Societies, Medical Colleges, Hospitals, Lunatic Asylums, and other permanently organized institutions of good standing in the State of Illinois. Each delegate shall hold his appointment for one year and shall participate in all the business and affairs of the Society."

"The *permanent members* shall consist of regular graduates from reputable schools of medicine who have served in the capacity of delegates, or such other regular graduates as may receive the appointment by unanimous vote."

"Permanent members shall at all times be entitled to attend the meetings and participate in the transactions of the Society so long as they continue to conform to its regulations, and when not in attendance they shall be authorized to grant letters of introduction to reputable practitioners of medicine residing in their vicinity, who may wish to participate in the meetings as provided for members by invitation."

Laid over to the next annual meeting of the Society.

Thirty nine M. D's. were proposed as permanent members and were unanimously elected.

The reports of standing Committees being in order, Dr. E. S. Cooper, in the absence of the chairman of the Committee, on Practical Surgery, read a paper which he intended to add to the report, on the beneficial effects of chloroform as an anæsthetic agent in operative surgery. Referred to Committee on Publication.

Dr. S. Thompson, chairman of the Committee on Practical Medicine, read an elaborate report. Referred to Committee on Publication.

On motion of Dr. Chamberlain, the Society adjourned to 2 o'clock P. M.

Afternoon Session.

The Society proceeded to select a place for holding the next annual meeting. Jacksonville and Chicago were put in nomination, and after an interchange of opinion of the advantages of those places respectively in regard to facility of access and the best interest of the profession throughout the State. Jacksonville was finally selected.

On motion of Dr. A. L. McArthur, a Committee of three was appointed by the chair to nominate members for the Standing Committees.

Drs. E. M'Arthur, Dickinson and S. A. Paddock, were appointed that Committee.

Dr. C. N. Andrews moved the following:

Resolved, That this Society again recommend the organization of County Medical Societies throughout the State, and in case it is found inconvenient for single counties to organize several counties are recommended to join for that purpose.

Dr. Wm. B. Herrick gave notice of the following amendment to the Constitution.

Resolved, That the Constitution of this Society be so amended as to strike out all relating to the appointment and duties of Committees on Practical Medicine, Surgery, Obstetrics, and Drugs and Medicines, and that there be established a provision for the appointment of at least four special Committees, each consisting of three members, the duties of which it shall be to investigate and report upon general or special subjects such as may be selected by a vote of the Society. Lies over until the next annual meeting of the Society.

The Committee on nominations of Standing Committees reported the following:

Drs. E. Roe, I. Richardson and J. A. Halderman Committee on Arrangements.

Drs. N. S. Davis, H. Shoemaker and T. Hall Committee on Practical Medicine.

Drs. — Murphy, Wm. B. Herrick and A. L. Mc'Arthur, Committee on Surgery.

Drs. R. Boal, J. C. Fitz and J. A. Haldeman Committee on Obstetrics.

Drs. J. V. Z. Blaney, J. C. Frye and W. E. Moss Committee on Drugs and Medicines.

The report was adopted and the gentlemen in nomination unanimously elected.

Dr. Rouse being present, in the absence of the Chairman on Obstetrics, read a paper which he has hastily prepared on the use of Chloroform in parturition. Referred to Committee on Publication.

On motion of Dr. R. Rouse, the Society proceeded to the election of delegates to the National Medical Association which holds its next session at Richmond, Va.

The following gentlemen were elected :

Drs. R. Rouse, C. N. Andrews, J. D. Arnold, H. Shoemaker and S. Thompson ; and as alternates, Drs. E. M'Arthur, E. Dickinson, L. G. Thompson and E. S. Cooper.

On motion of Dr. R. Boal, Dr. A. E. Ames and Dr. J. C. Frye were appointed a Committee to prepare a report on the registration of births, deaths and marriages ; the Committee formerly elected having failed to report.

Dr. E. M'Arthur presented a preamble and resolutions to the effect, that the time had come when the people of the State of Illinois ought to regulate by statutory enactment, the qualifications of those who practice medicine and surgery.

Dr. E. S. Cooper offered a preamble and resolutions in reference to the present laws and public sentiment, which make the surgeon legally responsible for the performance of opera-

tive surgery ; but, at the same time, are hostile to those means by which the requisite knowledge is obtained for the skillful performance of his duty. Referred to the Committee on Publication.

Dr. J. C. Frye offered the following resolution which was laid upon the table.

Resolved, That a Committee of three be appointed to memorialize the Legislature in regard to the unjust and oppressive operation of the late law of homestead exemption upon the medical profession ; seeing that the mechanic is secured in his remuneration for labor necessarily completed before payment, and while the merchant possesses the choice of saying whom he will trust, the physician has to attend all, perhaps more because they are poor, and under the present law is dependent wholly upon the honor of a large number who are indebted to him and never intend to pay.

During the whole session there was manifested the best feeling between the members, in the discussions of the varied topics introduced.

After the passage of a vote of thanks to the Committee of Arrangements and the faculty of Peoria, for the kindness and attention manifested to all, the Society adjourned *sine die*.

A. L. M'ARTHUR,

Secretary Ill. State Med. Society.

ARTICLE II.

AMERICAN MEDICAL ASSOCIATION.

The recent meeting of this Association at Charleston, S. C., we are glad to learn, was a very pleasant and profitable one. Although not as large in point of numbers in attendance as

either of the two preceding meetings, the representation from points remote from the place of its meeting, was quite as great as at either.

As the profession generally take an interest in the Association, we have devoted a considerable space, in the present number of the Journal, to its proceedings.

The most noteworthy feature of its proceedings, is the alteration of the Constitution, by which the former standing committees have been abolished. A long list of Special committees, numbering twenty-seven in all, have been appointed in stead of the old arrangement.

Whether this is reform or a retrograde movement, remains to be seen. If to get rid of spending time, in hearing the reports read, was a main object in doing away with the old committees, the matter is not likely to be mended; for twenty-seven reports will probably take up much more time than seven. If the old committees, in making up their synopsis of the subjects committed to them, were in the way of original investigations, it may be well to have them abolished. But certainly a collection of the "more important improvements" into form for permanent preservation, was an object worthy of the association, and we feel quite confident that the loss of it will hereafter be seriously regretted.

The offering five fifty dollar prizes for volunteer essays, we believe will be a very valuable means of calling into active operation the investigating talents of the profession. Not that the money will pay for very able papers, but the distinction to be acquired by taking prizes, will be very much sought after, from which much good may result.

The site of the next meeting will be at the head quarters of the Old Dominion, within a few hours ride of Washington City, where Congress will be in session, and we may expect quite a large delegation to it from distant regions of the country, in consequence of the additional inducements to go that may be found in a visit to the Federal City.

ARTICLE III.

REPORT ON PRACTICAL MEDICINE,

The Report of the Committee on Practical Medicine to the American Medical Association for the year 1850, by Prof. Austin Flint, of Buffalo, as printed and laid before the meeting at Charleston, lies before us. If the plan of printing before presentation had been adopted by the committees generally in reference to their Reports, it would have done away with the supposed necessity for abolishing the standing committees—a measure, of the propriety of which, we have very serious doubts.

The report, as the profession had good grounds from the reputation of its author to expect, is a very well drawn up and able document. Although with some of the views of the author we cannot agree, we are willing to award to the report the mead of praise so justly its due, for being an authentic and reliable, as well as a well-selected and well-digested collection of facts from among the American improvements, for the last year in practical medicine. But our limits will not allow us to give an abstract of its contents, for which reason we lay it aside for future notice.

ARTICLE IV.

INTRODUCTORY ADDRESSES.

A number of these, the flowers of medical literature, have accumulated upon our table, making together quite a *beaute*.

We will now endeavor to discharge a long neglected duty, by paying our respects to some of them and by laying their characteristics before our readers.

The Introductory of Professor Pallen, at the opening of the last session in the St. Louis University, treats of the influence of reason or science in guiding to the discovery of truth by observation in medicine. It is written in a good style and abounds in happy illustrations from history, with sound inductions from them.

The Introductory of Professor J. R. Allen, of Transylvania University, delivered to a very respectable class assembled to receive instructions in the venerable hall of that, the pioneer Medical School of the West, is encouraging and rebukes the report of the down fall of that school. The lecture dwells upon the discouragements in the way of the physician and handles quackery without gloves.

The Introductory Address of Professor Ware, of Harvard University, is one of the few documents of this kind in which we find a single subject thoroughly and systematically discussed.

The subject here treated is "the Elements of Success in the Medical Profession," and it is handled with a master's hand.

But for the restrictions imposed upon us by the narrowness of our limits, we would give a synopsis of the arguments and illustrations of the author.

The Introductory of Prof. Curran, of Indianapolis, is upon the *position, relations* and *duties* of the medical profession. It is well written, and abounds in valuable suggestions, and useful information; but with some of the views expressed we are unable to concur. That the medical profession needs protection by law, we think is an admission of its weakness, which we deny; and if the *people* prefer not to be protected against quackery, we do not see that physicians are responsible for the consequences.

ARTICLE V.

CHOLERA.

The cholera appears to be prevailing to a limited extent in the region of St. Louis. In that city there have been about fifteen deaths from it reported daily for two weeks. We learn that it has been prevailing at Alton, Quincy, Springfield and some other points in the southern part of Illinois.

As yet it has not made its appearance in Chicago; some cases, probably of cholera morbus, have excited the fears of the nervous. An agent has been stationed at LaSalle, by the Board of Health, to give notice of the first approach of the disease from below, when, the Mayor informs us, a quarantine will at once be established. If well conducted we shall have strong hope that we may be spared a visitation of the pestilence the present season.

NEW POSTAGE LAW.

Of course from this date our correspondents, as everybody else, will pre-pay the postage on all their letters. Our subscribers will have quite a reduction in the postage on the Journal, by pre-paying quarterly in advance. The rates will be as follows:

For all distances under 500 miles,	-	-	1-2 ct. per oz.
" " over 500 and under 1500 miles,	-	-	1 ct. "
" " over 1500 " 2500 "	-	-	1 1-2 cts. "
" " over 2500 " 3500 "	-	-	2 cts. "
" " over 3500	-	-	2 1-2 cts. "

If the postage be not pre-paid quarterly at the office where the Journal is delivered, these rates will be doubled.

OBITUARY.

Died, at his residence, Kenosha, Wis., on the 5th of June, 1851, after a long and painful illness, Doctor David Walker, aged 49 years. The highest testimonials of respect have been paid to his memory by his friends and neighbors.

THE NORTH-WESTERN MEDICAL AND SURGICAL JOURNAL.

VOL. IV.]

SEPTEMBER, 1851.

[No. 8.

Part I.—Original Communications.

ARTICLE I.

Clinical Lectures in the Medical Wards of the Illinois General Hospital. By N. S. DAVIS, M. D., Prof. of Pathology, Practice, and Clinical Medicine, in Rush Medical College.

March 2, 1851, 9 o'clock, A. M.—Gentlemen: In calling your attention to the case before us, it is proper to remark that the patient, an Irish woman aged 35 years, the mother of several children, the youngest of whom is but a few months old, was seen by me two days since, when I found her in a small house destitute of every thing required for the comfort or welfare of the sick, and hence I procured her removal to the Hospital, where she was admitted last evening. It appears, from what I have been able to learn in regard to her history, that she was attacked about ten days since with the symptoms of ordinary remittent fever, viz: chills, followed by pain in the head and back, with a hot and dry skin, distinctly remitting every morning and returning with increasing intensity each afternoon. After the first three or four days, the exacerbations of fever were accompanied by delirium and great restlessness, and the morning remissions were less distinct. When I saw her two days since, her face was deeply flushed, head hot, skin hot and dry, tongue covered

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with a brownish yellow fur, dry, with some redness of the tip and edges, pulse 100 per minute and moderately full, much thirst, eyes injected and watery, bowels torpid, abdomen full, and respiration hurried. She was directed to take a powder composed of Calomel 3 grs., Ipecac, 1 gr., Sup. Carb. Soda 3 grs. every three hours until four doses had been taken, and then follow them with a table-spoonful of Castor Oil; the head to be kept cool by cloths dipped in cold water, and sinapisms applied to the feet. The castor oil was followed by two or three copious evacuations from the bowels, and an almost entire intermission in the febrile symptoms, during which she was ordered Sulph. Quinine 15 grs., Pulv. Opii. 1 gr., to be divided into three doses, and given one every three hours until all were taken. Owing to the want of attendance, however, this medicine was not given, and the patient was transferred to the Hospital.

Such is a brief history of the case up to the present time. You will now observe that the patient presents a very dull and stupid expression of countenance, the conjunctiva of the eye is injected, the position is dorsal, the prolabia and cheeks of a leaden or purplish hue, skin dry and warm, tongue covered with a brownish coat in the middle and red at the edges and tip, much thirst, abdomen full and moderately tympanitic, has had during the last twelve hours two or three dark, foetid and liquid evacuations from the bowels, pulse 110 per minute and easily compressed, little or no milk in her breasts, and manifests entire indifference in regard to her children. She complains of a disagreeable ringing or noise in her head, and slight deafness. The respiration is quicker and shorter than natural, and as I place my ear over the infra-clavicular regions, a dry whizzing or sibilant rattle is heard over a considerable extent on both sides. But the resonance on percussion is good.

Such, gentlemen, are the present symptoms. What do they indicate? How shall we interpret them, and what is the true pathological condition of the patient? In technical language, what is the diagnosis? The past history shows it to have been in the beginning a distinct remittent, arising under circumstances of exposure, destitution and mental anxiety. This continuing unchecked by appropriate treatment, gradually exhausted the vital energies on the one hand, and developed a phlogistic or inflammatory condition of the mucous membranes on the other. Hence the frequent and compressible pulse, the mental indifference, and stupid expression of countenance, coupled with the full and tympanitic condition of the abdomen, the dark watery evacuations, and the dry sibilant rônchus, which now constitute the prominent features of the case, and fairly bring it under the head of Typhoid fever, with special local determinations. The word Typhoid, as you are well aware, is used by different writers differently; some regarding it simply as synonymous with Typhus, while others, among whom are many eminent French writers as well as some in our own country, apply it to what they regard as a distinct variety of fever characterized by specific pathological lesions. I think, however, that the words Typhus and Typhoid should be used as strictly comparative terms, indicating different degrees of the same general condition of the organic or vital forces, and without reference to any special local lesions. For instance, if disease attacks an individual poorly fed, and exposed to the foul air of damp, ill-ventilated apartments, or the crowded hold of a ship, his symptoms will at once present that peculiar aspect which all agree in representing as true Typhus. And if it proceeds to a fatal termination, a post mortem examination may reveal local lesions either in the head, the chest, or the abdomen. True, there is a greater tendency to develop local disease in

the latter cavity, and especially in the mucous membrane of the intestines than elsewhere; but this by no means occurs so uniformly as to be entitled to the appellation of a specific and essential part of the disease. Again an individual exposed to less depressing and poisonous influences, may be attacked with fever either remittent or continued, and during the first week the symptoms will present a more or less active or stenic character. But the disease continuing unchecked, the excretory organs, as the skin, kidneys, liver, &c., perform their functions but imperfectly, leaving more or less excretory matter of a deleterious and depressing nature in the system, which added to the ordinary exhausting effects of all morbid action, sooner or later induces that impaired condition of the organic or vital forces which I have already described as characteristic of true Typhus. In ordinary professional parlance, what was regarded in the beginning as a simple remittent or continued fever, has now put on a Typhoid form. And this Typhoid state may, like true Typhus, be accompanied by local lesions in any of the important viscera of the system, though experience has shown that the follicles and glands of the intestinal mucous membrane are by far the most frequent seat of such lesions. You will thus see, gentlemen, that I use the words Typhus and Typhoid, to indicate a certain impaired condition of the vital forces in a febrile state, without reference to any particular local affection, or the intervention of any specific cause. Taking this view, you will readily see that we may have in practice every shade of Typhoid condition, from the complete Typhus which occurs among emigrants crowded on shipboard, to the slightest Typhoid tendency induced as a result of a more active but uncontrolled morbid condition.

In the case before us, we have, strictly speaking, a secondary Typhus supervening on a more active form of fever, and complicated with inflammatory action in the mucous tissue both of the small intestines and bronchial tubes.

Prognosis.—The final result of this case is doubtful. The frequency of the pulse, and the evidences of local disease, both in the pulmonary and intestinal mucous membranes, with the well known tendency of the latter to terminate in extensive superficial ulceration, give us fears of a fatal result. Still many cases recover with symptoms more unfavorable than in the present instance, and hence the patient ought to be encouraged to hope for the best.

Treatment.—You will see at a glance that we have two prominent indications to fulfill in the further treatment of this case, viz: First, to sustain the circulation and nervous energy of the system, or, at least, prevent them from becoming further impaired; and second, to remove the local affection of the mucous surfaces. What we have always to fear in such cases as this, is, that the intestinal mucous surface will become ulcerated, causing the abdomen to become more tympanitic, and the discharges more frequent and watery or dark and grumous, with steadily increasing depression of the vital forces; or the pulmonary mucous surface will take on a copious suppurative action, inducing copious expectoration, night sweats and rapid emaciation. Hence the accomplishment of the second indication named is the all-important object at the present moment. But how shall this be done? Not by depletion either general or local—not by mercurials or antimony; for there is already too much depression to admit any of these, except perhaps an alterative dose of Calomel given at remote intervals and coupled with an anodyne. Neither will the patient be benefited by that class of stimulants called diffusive, and which tend to excite the circulation. In my own practice I have found no class of remedies to act as favorably on that peculiar grade of mucous inflammation, (if such we may call it,) which exists in this and similar cases, as the Balsamic and Terebinthinate articles conjoined with small doses of opiates, aided by counter irritation externally. Without attempting to explain the exact *modus operandi* of this class of reme-

dies, we may suppose that they exert a peculiar influence over the capillary circulation, while they promote the secretions from the skin and kidneys without depressing the general tone or energy of the organic actions. They are best given in the form of emulsion. At present we will direct the following formula: \mathcal{R} Balsam Copaiba $\mathfrak{z}\text{ij}$, Tinct. Opii. $\mathfrak{z}\text{j}$, White Sugar and Gum Arabac each $\mathfrak{z}\text{ijj}$, rubbed thoroughly together and added to Water $\mathfrak{z}\text{ij}$. Of this one tea-spoonful must be given every four hours. We will also place a large blister over the epigastric region, and allow bread water, with some plain animal broth for drink and nourishment.

*March 3, 9 o'clock, A. M.**—All the symptoms remain as yesterday, except the tongue is more moist, the dry roushus of yesterday is changed to one more moist, with an occasional cough and expectoration of muco-purulent matter, and no alvine evacuations since last visit. Blister has drawn well. The pulse remains over 110 per minute, and the abdomen more tympanitic.

Ordered a cathartic composed of Castor Oil two parts, Oil of Turpentine one part, half an oz., and after its operation to continue the emulsion every six hours.

March 4, 9 o'clock, A. M.—The cathartic procured three copious, dark-colored, but less watery evacuations from the bowels; the abdomen is much less tympanitic, the tongue moist and less red at the tip and edges, the skin moist, and expression of countenance somewhat improved. Still, the pulse remains as frequent as before, and the cough and expectoration have greatly increased.

Continue the emulsion as before, with another blister over the upper and anterior part of the chest.

March 5, 9 o'clock, A. M.—The symptoms of intestinal

*Having embodied a pretty full view of the case in the report of yesterday, we omit the Professor's remarks from day to day, and report only so much as will lead the reader to follow the treatment to its termination.

irritation have almost entirely subsided. There has been one evacuation from the bowels, and that of a more consistent and natural appearance. But the patient had a distinct febrile paroxysm last evening, which ended towards morning in a profuse sweat, the skin still remaining moist and the patient complaining of much weakness. The expectoration still remains copious, of a purulent character, and the pulse 105 per minute. Ordered her Quinine 5 grs., with Pulv. Opium $\frac{1}{4}$ gr., to be given now, and the same repeated to-morrow morning at 6 o'clock. Also a mixture of Hive Syrup $\mathfrak{z}\text{ij}$, Tinct. of Blood-root $\mathfrak{z}\text{ss}$., and Tinct. Opii $\mathfrak{z}\text{j}$; mix and give one tea-spoonful every four hours.

This treatment was continued with a subsequent additional blister over the chest, and an occasional laxative of Syrup of Rheubarb through the next five days, and the patient steadily though slowly improved. The hectic paroxysms subsided, the expectoration lessened, the pulse became slower, and the tongue clean and natural. The patient, however, remained much emaciated and feeble. She was then put on the use of Cod Liver Oil, a table-spoonful three times a day, with a plain, nutritious diet, and she rapidly recovered her usual health, being discharged on the 1st of April.

ARTICLE II.

An Experimental Inquiry concerning some points in the Vital Processes of Assimilation and Nutrition. Read before the American Medical Association at its Annual Meeting in Charleston, S. C., May, 1851. By N. S. DAVIS, M. D., Prof. of Principles and Practice of Medicine, and Clinical Medicine, in Rush Medical College; Member of the American Med. Association; one of the Physicians to the Illinois Gen. Hospital, &c., &c. Chicago, Illinois, 1851.

The following experiments and observations constitute part of a series undertaken for the purpose of ascertaining, first: The influence of different kinds of food and drink on the functions of Calorification and Respiration, as indicated by the changes of temperature and the variations in the quantity of carbonic acid gas thrown off during expiration, in the healthy condition of the human system; and second, the changes which the several constituents of the blood undergo in their relative proportions during the passage of that fluid through the secreting organs and some of the non-secreting structures of the human body.

According to the prevailing Physiological doctrines concerning Digestion, Respiration, and Calorification, all alimentary substances are divided into two great classes, viz: the *nitrogenized* and non-nitrogenized or carbonaceous. Those belonging to the first class, are supposed to be used principally for nourishing the tissues; while those of the second, are consumed in supporting the functions of respiration and calorification. Admitting the correctness of these positions, we should reasonably infer that an individual fed exclusively on carbonaceous aliment would maintain a higher temperature and emit a greater proportion of carbonic acid gas with the ex-

pired air than when confined to a diet altogether nitrogenous. To test the correctness of this view by direct experiments constituted the object of the first series of observations which will be detailed in a subsequent part of this paper.

Closely connected with the prevailing doctrines concerning the nature and uses of different alimentary substances, is the composition of the blood, and the origin of its several proximate constituents, and their respective uses in the animal economy.

The same chemico-physiological views which have led to a division of aliments into nitrogenized and non-nitrogenized, have also regarded the latter class as the source of carbonic and lactic acids, water, &c., in the blood, the formation of which generated the caloric necessary for maintaining the temperature of the body; while the former or nitrogenized class, furnished the albumen, fibrin, and corpuscles or cell-structures, constituting the plastic materials necessary for supplying the waste of the tissues. And most Physiologists agree with Dr. Carpenter, in considering albumen as the primary form to which this class of aliment is reduced by the digestive processes, and that the conversion of albumen into fibrin is a further assimilative change—a step nearer to a state of organization. Thus, says Carpenter, “albumen is always the starting point; since the fibrinous elements of organized tissues are reduced, by the solvent powers of the gastric fluid, to the same form with the unorganized coagulum of the albumen of the egg. The conversion of albumen into fibrine, therefore, is the *first* great step in the process of nutrition, by which the materials supplied by the food are made to form part of the living tissues of the body; and it is the one to which the term *Assimilation* may be most appropriately applied.” Many facts, however, are to be met with not easily reconciled to the view so ably maintained by Dr. Carpenter and others. And it was with the hope of throwing some ad-

ditional light on the subject, that I instituted the analyses which constitute the second series of experiments detailed below.

First Series.—In this series of observations my first object was to ascertain the *temperature* of the body in a state of health, at different periods of the day, and under the influence of an ordinary mixed diet of animal and vegetable food ; and coincidently therewith, the relative proportion of carbonic acid exhaled with the expired air. For this purpose I chose a healthy man, aged 34 years, whose habits of life were regular and strictly temperate, and noted his temperature as indicated by a reliable thermometer, the bulb of which was placed under the tongue, and allowed to remain five minutes with the mouth closed around it. Immediately after noting the temperature, eight cubic inches of expired air was collected in a graduated tube or small jar, inverted over mercury. From the mercury bath, the jar was removed to one of fresh lime water, and allowed to remain until absorption ceased. The height to which the lime-water rose in the jar indicated the quantity of carbonic acid which had been removed from the given quantity of expired air. These observations were repeated six times each day, viz: at 7½ A. M., half an hour before taking food ; between 10 and 11 A. M., from two to three hours after breakfast ; at 12½ P. M., immediately before dinner ; at 3½ P. M., two and a half hours after dinner ; at 5½ P. M., immediately before tea ; and 8 P. M., two and a half hours after tea.

The temperature of the room in which all the observations were made did not vary at any time more than two degrees from 50° of F., and the mercury and lime-water baths were always in the same room. The following is the average result of 16 days' observations under an ordinary mixed diet, viz :

	7½ o'clock, A. M.	10½ A. M.	12½ P. M.	3½ P. M.	5½ P. M.	8 P. M.
Av. Temperature,	94° F.	96° F.	95°2 F.	96°7 F.	95°3 F.	96° F.
Highest,	94°5 F.	97°3 F.	96° F.	97°3 F.	95°5 F.	96° F.
Lowest,	93°7 F.	95°6 F.	94° F.	96°3 F.	95° F.	96° F.
Average of Carb. Acid in 8 Cubic Inches of Expired Air.	12-16 of a Cubic inch, or 1 part in 10.6.	11-16 C. I. or 1 to 11.6.	11½-16 C. I., or 1 to 11.1.	14-16 C. I., or 1 to 9.1.	14-16 C. I., or 1 to 9.1.	13-16 C. I., or 1 to 9.8.

Two interesting inferences are fairly deducible from this table, viz: First, that the temperature of the body is uniformly from one or two degrees higher during the active stage of digestion, that is, about two hours after eating, than after the digestive process is fully completed. Second, that the temperature of the body and the relative proportion of carbonic acid gas in expired air, do not bear a uniform ratio towards each other. The greatest amount of carbonic acid being exhaled between the hours of 3 o'clock P. M. and 6 o'clock P. M., and then diminishing until 10 o'clock A. M., of the following day; while the temperature uniformly rose from one to two degrees during every regular period of digestion, reaching its greatest height about two hours after dinner. My next object was to continue the same observations under the influence of a diet as strictly *carbonaceous* as was consistent with healthy digestion. For this purpose the same individual was confined for three days, to a diet consisting exclusively of rice starch, boiled, and white sugar, eaten freely three times a day at the usual hours. The observations during these three days were continued with the same apparatus and under the same circumstances as before, and the results are seen in the following table, viz:

	7½ o'clock, A. M.	10½ A. M.	12½ P. M.	3½ P. M.	5½ P. M.	8 P. M.
Av. Temperature,	93°4 F.	95°7 F.	95° F.	96° F.	94°7 F.	95°2 F.
Highest,	93°7 F.	96° F.	95°1 F.	96° F.	95°5 F.	95°2 F.
Lowest,	93° F.	95°5 F.	95° F.	96° F.	94° F.	95°2 F.
Average of Carb. Acid in 8 Cubic Inches of Expired Air.	11½-16 of C. Inch, or 1 part in 11.1.	12½-16 C. I., or 1 in 10.2.	14-16 C. I., or 1 in 9.1.	13-16 C. I., or 1 in 9.8.	12-16 C. I., or 1 in 10.6.	12-16 C. I., or 1 in 10.6.

Two things will strike the reader while comparing this with

the preceding table. First, the average temperature of the system throughout the day ranges about half a degree *lower* than under a liberal mixed diet of vegetable and animal food. Second, the average amount of carbonic acid contained in the expired air is very nearly the same for the entire day, but instead of appearing in the smallest proportion between the hours of nine and twelve A. M., and the greatest proportion between three and six P. M., as in the first table, we find these extremes between six and nine A. M., and twelve M. and three P. M. Another variation which does not appear in the table, but which was fully verified by repeated trials, consisted in the fact that the temperature as indicated by the thermometer under the tongue, more quickly attained its maximum height after eating and began again to decline, than under the influence of a mixed diet.

After a few days interval, during which an ordinary mixed diet was allowed, the same individual was confined for three days to a diet exclusively *nitrogenous*, consisting of *albumen of eggs*, from which the yolk was wholly excluded, eaten in liberal quantities three times a day, at the hours previously mentioned, and once a day a very small quantity of dried beef, from which care was taken to remove as far as possible every vestige of fat and cellular tissue. The following is the result, viz :

	7½ o'clock, A. M.	10½ A. M.	12½ P. M.	3½ P. M.	5½ P. M.	8 P. M.
Av. Temperature,	95° F.	95°6 F.	95°8 F.	96°2 F.	95°3 F.	95°6 F.
Highest,	95° F.	96° F.	95°9 F.	96°5 F.	95°5 F.	96°8 F.
Lowest,	95° F.	95°3 F.	95°7 F.	96° F.	95° F.	95°5 F.
Average of Carb. Acid in 8 Cubic Inches of Expired Air.	14-16 of a Cubic Inch, or 1 part in 9.1.	12-16 of C. I., or 1 in 10.6.	12½-16 C. I., or 1 in 10.2.	12-16 C. I., or 1 in 10.6.	12-16 C. I., or 1 in 10.6.	13-16 C. I., or 1 in 9.8.

In glancing over this table, we are struck at once with the uniformity of temperature maintained throughout the entire day, there being a variation of only a little more than *one* degree from the lowest point before breakfast to the highest, two

hours after dinner. While in both the previous tables the difference between the same hours is but little less than *three* degrees. And yet, the mean temperature for the entire day is nearly the same in all.

It being in the first under mixed diet, - - 95°5

In the second under an exclusive carbonaceous diet, 95°

In the third, under an exclusive Nitrogenous diet, 95°6

The proportion of carbonic acid exhaled from the lungs, as seen in the third table, also differs in two respects from the two preceding. First, the proportion is more uniform throughout the day, varying only from 1 part in 9.1 to 1 in 10.6 of the expired air. Second, the period when the carbonic acid was greatest is almost the reverse of that in the first table, being greatest late in the evening and early in the morning, instead of early in the afternoon. This will be seen more readily by glancing at the following table:

Average proportion of Carbonic Acid in Expired Air under the influence of a mixed diet during whole day,			
Highest average between 3 o'clock P. M. and 6 P. M.,	1	cubic inch in	10.24
Lowest average between 9 o'clock A. M. and 12 M.,	1	" "	10.6
Average for whole day under Carbonaceous diet,			
Highest average between 12 o'clock M. and 3 P. M.,	1	" "	10.17
Lowest average between 6 o'clock A. M. and 9 A. M.,	1	" "	9.1
Average for whole day under Nitrogenous diet,			
Highest average between 6 o'clock A. M. and 9 A. M.,	1	" "	10.11
Lowest average between 3 o'clock P. M. and 6 P. M.,	1	" "	9.1
			10.6

A comparison of these averages with the average temperature of each day under the different systems of diet, will lead to the same conclusion as the inspection of each individual table. That is, the absence of any uniform correspondence between the actual temperature of the body and the quantity of carbonic acid exhaled from the lungs. On the contrary, it would seem that the temperature is uniformly greatest during the middle or active period of digestion, and diminishes in proportion to the length of time which elapses before a fresh supply of food is taken. Hence the lowest temperature was always in the morning before breakfast, when about 14 hours

had intervened since taking food the previous evening.— While the proportion of carbonic acid exhaled reached its maximum under the carbonaceous diet about 12 M., under the mixed diet about 3 o'clock P. M., and under the nitrogenous, not till 7 o'clock the following morning.

These variations, both in regard to temperature and expired carbonic acid, are doubtless owing chiefly to the difference in the digestibility of the several classes of food used. Thus it was very evident, from the feelings of the individual subjected to experiment, that the well boiled rice starch was easily and quickly digested and removed from the stomach, accompanied by a correspondingly rapid rise and subsequent fall of temperature, with the maximum proportion of carbonic acid at mid-day. The digestion of the mixed diet was more protracted, the rise of temperature a little slower and longer sustained, and the maximum proportion of carbonic acid three hours later in the afternoon. The diet of albumen was very slow of digestion, being sensibly felt in the stomach from the end of one meal to well nigh the commencement of another, and consequently the rise of temperature was so gradual and protracted as to present comparatively little variation during the entire day, and the maximum proportion of carbonic acid was not exhibited until late in the evening or early next morning.

But the most interesting question connected with these observations, is that which relates to their bearing on the commonly received doctrines in relation to the uses of the two classes of diet, called Carbonaceous and Nitrogenous. The Chemico-Physiological doctrines in regard to diet, nutrition, respiration, and animal heat, first extensively and systematically promulgated by Liebig, were so simple and plausible as to meet an almost unparalleled popular reception, and with various modifications to become speedily incorporated, as received truths, into almost all the Physiological works of the

day. These doctrines, as has been previously stated, assign to the carbonaceous articles of food, including oils or fats, starch and sugar, the office of furnishing carbon and water to the blood and fat to the tissues, from which result carbonic acid in expired air and heat to the whole system; while the nitrogenous articles, including vegetable and animal albumen, fibrin, &c., were more especially or exclusively used to supply the corresponding elements of the blood, and nourish the tissues of the body. Notwithstanding these doctrines have met with so general a reception, both within and without the ranks of the profession of medicine, they rest, so far as I can discover, entirely on their plausibility, aided by considerations of the most general and ill-defined character. Such as the allegation, that man eats more fat and carbonaceous substances in winter than summer, in cold countries than warm; that all the constituents of the blood and tissues are found in the food, and consequently digestion is a process of solution and not of transformation, at least, so far as regards the albumen, fibrin, &c.; and that, as starch is convertible into sugar, and sugar, with the addition of oxygen, into carbonic acid and water out of the body, they therefore undergo the same changes when taken as food into the body, &c., &c. But I am not aware that up to the present time, any one has attempted to demonstrate their truth by direct experiments, except so far as the observations embodied in the foregoing tables may be considered such an attempt. And these, so far from demonstrating their truth, militate very strongly in the opposite direction. Indeed, should they be corroborated by further and more extended observations of the same character, we shall be forced to renounce much of the doctrines briefly alluded to, notwithstanding their captivating simplicity. If the chief uses of the carbonaceous articles of food, consist in furnishing fat and water to the blood, carbon to the respiratory process, and caloric to the whole system, then

an abundant, if not exclusive supply of these articles, should both elevate the temperature of the body and increase the proportion of carbonic acid in the expired air; while a deprivation of them, should cause a rapid diminution of both. No propositions could be more clear than these. And yet, according to the experiments already detailed, performed with all the precautions to ensure accuracy which I could devise, no such results were obtained. It may be thought that three days were not long enough to afford a fair test; but if we remember that the lowest estimates place the amount of carbon exhaled at *eight ounces* every twenty-four hours, making 24 ounces of solid carbon during the continuance of each series of our observations, and then observe the contrast between an abundant or even excessive supply in the form of carbonaceous food, and an entire deprivation of this class of aliment, we certainly should have good reason to expect a marked variation in the result. For if it might be supposed the carbon already in the blood, would be sufficient to keep the proportion of carbonic acid in the expired air up to the ordinary standard for a time after the supply of the corresponding class of aliment had been cut off, this surely could not be continued, without a well marked diminution, until more than twenty ounces of solid carbon had been exhaled. But the third table given above, not only shows no diminution in the average proportion of carbonic acid exhaled while under a strictly nitrogenous diet, but the details of each 'days' observations included in the table, show full as large a proportion of carbon in the expired air during the last day as the first; and this, too, when less than a single ounce of any food other than albumen and water had been taken during the whole three days. Such a result taken in connection with the full maintainance of the temperature of the system, renders it at least doubtful whether the nitrogenous and non-nitrogenous articles of diet have any such separate and distinct uses

in the animal economy as have been assigned to them. We should by no means consider the foregoing experiments sufficient to enable us to draw therefrom established and reliable conclusions, but should they be corroborated by further extension and repetition, they will show most conclusively that animal heat corresponds with the activity of absorption and nutrition, while the expired carbonic acid is a product of the decomposition of tissues rather than of any particular class of food. And hence that both are kept up to their full healthy standard, as well by nitrogenous as carbonaceous food, so long as the digestive apparatus is capable of dissolving either or both with facility. These views are still further corroborated by our experiments with Alcohol, which, from its highly carbonaceous character, is regarded by Liebig, and others, as one of the most efficient supporters of combustion, and consequently of animal heat, that we possess. Prout had long since demonstrated that Alcohol taken into the system, instead of furnishing carbon for the respiratory process, speedily and decidedly diminished the exhalation of that material from the lungs; and his observations have since been abundantly confirmed by M. M. Bouchardat and Sandras. But neither of these gentlemen took any measures to test the actual variations of temperature in the system while under the influence of the alcohol, and the accompanying diminution in the quantity of exhaled carbon. And hence Liebig attempts to obviate the force of any objection founded on the results of the experiments of Prout and Bouchardat, by alledging that "the increased formation of *water*, which will occur when Alcohol is the combustive material, compensates for the diminution in the amount of carbonic acid expired, and thus the normal amount of heat may be generated." For the purpose of supplying this defect, the following experiment was performed on the same individual, and with the same apparatus as in all the previous cases.

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At 9 o'clock, P. M., three and a half hours after supper, the temperature as indicated by the thermometer under the tongue was 95° , and the proportion of carbonic acid in the expired air 1 to 13. The pulse was 80 per minute, which was about the normal standard for the individual. Four ounces of strong brandy were now taken. At the end of 45 minutes, the pulse was increased to 90 per minute, the temperature unaltered, remaining precisely at 95° , but the proportion of carbonic acid in the expired air was diminished to 1 part in 14.2. At the end of one hour, the pulse had fallen to 85 per minute, the temperature still remained at 95° , but the proportion of carbonic acid in the expired air had still further diminished to 1 part in 16. At the end of two full hours, the pulse had returned to 80 per minute, the mercury failed to reach 95° , being not more than $94^{\circ}8$, while the proportion of carbonic acid in the expired air had perceptibly increased. At 45 minutes past 11 o'clock, 2 $\frac{3}{4}$ hours after taking the brandy, the temperature had fallen to 94.5 , and the proportion of carbonic acid in the expired air had increased to 1 part in 12.5. This experiment was repeated a second time with precisely similar results. It will be seen that it fully corroborates the observations of previous investigators in regard to the diminution of the quantity of expired carbonic acid, while it at the same time proves that there is not only *no increase* of temperature, but a subsequent decided diminution. If it be asked, how these results are to be reconciled with the well known good effects of Alcohol in sustaining the vital energies in certain low or typhoid forms of disease, we confess our inability to answer, on the supposition that it is a simple *combustive*, or heat-generating agent. But does the defect, supplied by Alcohol, in the forms of disease alluded to, consist in simple defective or insufficient calorification?

A careful review of all those cases or forms of disease in which Alcoholic stimulants prove beneficial, will conclusively

show that the fundamental defect is in the function of *innervation*, and that whatever failure there may be in the actual temperature of the system, it is secondary or consequent on the arrest, partial or complete, of the molecular or organic actions, which if not dependent on, are at least more or less influenced by the nerves of organic and animal life. And hence the beneficial effects of Alcohol in all such cases, can be much better explained, by supposing it to act directly on the nervous tissue, for which it is well known to possess so strong an affinity. By thus increasing the innervation, the organic actions are sustained, nutrition recommences and animal heat is generated—and that, too, without any *combustion* of the Alcohol, or anything approaching to the nature of that process. Such an explanation is also perfectly consistent with the effects of the Alcohol on a healthy system, as shown by the experiments alluded to above.

Without presuming to draw any conclusions from the incomplete investigations detailed above, it may not be improper to state as the result of all our researches thus far, that the doctrine of *combustion* in the animal economy, by which is meant the appropriation of certain alimentary substances to the nourishment of the tissues, and certain others to the *direct* support of respiration and animal heat, by being resolved into carbonic acid and water in the blood, rests on nothing but a purely theoretical foundation. On the other hand, the phenomena of both health and disease, unite with the experimental inquiries hitherto instituted bearing on this subject, in pointing us to the conclusion that the *carbonic acid* of the respiratory process, like the secretions from the skin and kidneys, is a true product of the decomposition or metamorphosis of the structures of the body, while the *temperature* depends directly on those changes which take place in the nutritive and organic actions.

This view compels us to suppose that all digestible sub-

stances, whether carbonaceous or nitrogenous, are assimilated and appropriated with more or less facility to the nourishment of the solid textures of the body. But it by no means precludes the idea, that certain articles of food may generate an excess of either carbonaceous or nitrogenous elements in the blood, and that such elements may serve to increase the amount of excretion from either the lungs or kidneys, without having previously constituted any part of the solid tissues, and without undergoing any process really analogous to combustion. But it was not so much my intention to draw Physiological conclusions as to state such facts as I had thus far been able to demonstrate. Hence I shall hasten to the second department of this paper.

Second Series.—The blood, as the common fluid from which all the animal tissues receive their nourishment on the one hand, and all the secreting organs and surfaces receive the materials for their several secretions on the other, has long been a prominent subject of study both by the physiologist and the physician. And yet the prevailing views in regard to the origin and uses of its several proximate elements are, as has been already stated, far from being satisfactory or well settled. Notwithstanding the most patient research, and the many analysis of blood which have been made, no one has yet satisfactorily distinguished those ingredients which are truly *nutritive*, from those which are incapable of affording nourishment, or have served their purpose, and are hence on their way to some one of the excretory outlets of the system. It is generally considered, for instance, that the waste nitrogenous matter resulting from the constant change going on in the organized tissues of the system, finds its chief exit through the kidneys in the form of Urea, Uric Acid, &c., but no one has yet satisfactorily pointed out the *form* it assumes while passing from the tissues to the kidneys. It surely cannot be in the form of Urea, for if so, the quantity is so great that its

presence in the arterial blood would always be easily detected. And Simon's suggestion that it is the extractive matters of the blood from which the nitrogenized constituents of the urine are derived, is simply an opinion without proof. There are very few opinions in Physiology more universally assented to, especially by British and American physiologists, than that the albumen and fibrin of the blood are its chief *nutrient* elements; the latter being especially regarded as presenting the highest degree of assimilation, bearing, according to the expression of Carpenter, the same relation to organized tissue, that the "*spun yarn* does to the *woven fabric*." And yet if this is so, why do we find fibrin in its full proportion, or even in excess in protracted Anemia, in the wasting hectic of Phthisis, and in all acute inflammations, after the patient has perhaps been many days without nourishment of any kind? The ordinary explanation, which consists in attributing the increase of fibrine in these cases, to the more rapid oxydation (or assimilation, if you please,) of the albumen, in consequence of the greater rapidity of the circulation and respiration, is very unsatisfactory; first, because no such increased rapidity of either circulation or respiration, takes place in many of the cases to which the explanation has been applied; and second, because it is very difficult to conceive how more oxygen can gain access to the blood, when half of the pulmonary tissue is, perhaps, rendered impermeable by tubercular deposits and vomica, or when the access of air to the lungs is greatly diminished by an extensive pulmonary or laryngeal inflammation. Neither is the view taken by Simon,* who attributes the elaboration of the fibrin to the dissolution or metamorphosis of the red corpuscles of the blood, and who,

*It is necessary to remind the reader that this essay was prepared before the recent views of Simon, as stated in his Lectures delivered at St. Thomas's Hospital, London, during the summer session of 1850, had been seen by me. In those lectures Simon has arrived at conclusions much more nearly in accordance with those presented in the latter part of this paper; though without instituting any new experiments or analysis in support of them. It is gratifying, however, to find myself both anticipated and sustained by an authority so justly eminent.

consequently, asserts that the increase of fibrin is in proportion to the rapidity of the consumption of such corpuscles, any less liable to objections. And the rule which he lays down as the necessary consequence of this explanation, viz : "that the *amount of fibrin must always stand in an inverse ratio* to that of the blood-corpuscles," is by no means sustained either by his own analytical tables, or those of Andral, Gavaret, Rodier, and others. Indeed, the tables he has given on pages 205 and 206 of his work on the Chemistry of Man, illustrating the influence of blood-letting or the composition of blood, not only destroy the theory adopted by Simon, but furnish an additional objection in the way of considering fibrin as the chief nutrient element of that fluid. These tables, compiled from the analysis of Andral, Gavaret, Rodier, and Simon, show very conclusively that blood-letting increases the relative proportion of water and fibrin in the blood, while its corpuscles and all the other solid constituents are diminished. Now if we suppose fibrin to be a highly elaborated product, resulting from the metamorphosis of the red-corpuscles, it is certainly difficult to conceive how the direct abstraction of such corpuscles, by bleeding, should add to the relative quantity of fibrine left in the blood. On the contrary, if the one results from the natural maturation and dissolution of the other, we should suppose that the direct abstraction of the latter, without such dissolution, would necessarily be accompanied by a diminution of the former. The rapid increase of the relative proportion of water after bleeding, is by universal consent, attributed to the rapid absorption of water from the various tissues and surfaces of the body; and if we suppose fibrin to be present in the various tissues as a waste product, the maintainance of its full proportion would be satisfactorily accounted for in the same manner as the water. Again, it would be reasonable to infer, that the blood, in a perfectly healthy state of the system, when the digestive pow-

ers were active and the supply of food abundant, would present a full or predominant relative proportion of those ingredients which result directly from the function of assimilation and are designed to nourish the textures; and it is then that we always find the blood-corpuscles, the albumen, the fatty matter, &c., most abundant.

On the other hand, when such diseases occur as are accompanied by an entire disrelish and consequent discontinuance of food, together with an active capillary circulation and rapid emaciation or waste of textures, we should expect to find those elements of the blood which are derived from a waste of the organized structures decidedly increased in their relative proportion; more especially so if those diseases were also accompanied by a diminution of the more important excretions, as is the case in almost all the acute inflammations. And what are the facts as revealed on almost every page of Pathological investigation? Simply, that these are the very diseases and circumstances under which the blood exhibits its largest proportion of fibrin and salts—especially the former. While on the other hand, all those diseases characterized by diminished innervation and consequent sluggish capillary circulation, and in which absorption and emaciation are much less rapid—such as Typhus, Scurvy, &c.—the fibrin remains normal in its proportion or diminishes, while the corpuscles and albumen remain but little or not at all diminished.

The foregoing considerations, with many others that might be mentioned, led me long since to doubt very much the correctness of the generally received opinions in regard to the origin and uses of the fibrin, as well as some of the other constituents of healthy blood. Whether the fibrin be truly nutritive in its character, or whether it be a product of the first step in the process of metamorphosis or waste of tissues, we should expect in health to find it nearly equal in the gen-

eral mass of venous and arterial blood—in the first case perhaps slightly in excess in arterial, and in the latter, in venous blood. If, however, it be a product of the first step towards decay or metamorphosis of tissues, and therefore destined for excretion, we should expect the blood, in those veins which return the circulating fluid from the organs engaged in its excretion, to contain decidedly less of this element than either that of the arteries leading to such organs, or of the veins leading from non-secreting or muscular parts of the body. On looking over the analysis of Andral, Gavaret, Lecanu, Shultz, Denis, Becquerel, Bodier, Lehman, Simon, and others, I find but one attempt to institute an analytical comparison between the quantity of fibrin in the veins returning blood from secreting organs, and that found in the arteries. And I nowhere find the relative composition of the blood in the veins of an actively secreting organ, compared with that in the veins returning from non-secreting or muscular parts. There have been numerous analysis of veinous blood in comparison with arterial, but without any reference to the particular parts from which the veinous blood was returned. The one exception to which allusion was just made, was by Simon, who procured the blood from the Renal veins, the Hepatic veins, and the Aorta of a horse, and subjected it to careful analysis, particularly in reference to the quantity of *fibrin* contained in each specimen. The results are given on page 139 of his work on the Chemistry of Man, and are as follows, viz :

Renal Vein.		Hepatic Vein.		Aorta.	
Water,	778,000	Water,	725,000	Water,	790,000
Albumen,	99,230	Albumen,	130,000	Albumen,	90,300
Urine,	,000	Fibrine,	2,500	Fibrine,	8,200
Whole solid matter,	222,000	Whole solid matter,	275,000	Whole solid matter,	210,000

This presents truly a striking result; the blood returning from two of the largest secreting organs in the body is found to contain far less *fibrin* and *water*, and more *albumen* than

that from the Aorta. But there are two circumstances which render this analysis unsatisfactory. First, the horse from which the blood was taken was not healthy, and in a *starved* condition. Second, the quantity of blood obtained from the Renal veins (being only 50 grs.) was insufficient to determine accurately the proportion of fibrin.

To obviate these objections, and at the same time add another important element to the comparison, I procured a large, healthy, and active dog, and procured some blood from the Renal vein, the Illiac vein, and the Illiac Artery, in the following manner: The dog was stunned by a blow on his head, the abdomen being quickly laid open, a ligature was passed around the Renal vein near its entrance into the ascending cava, and on puncturing the vein, 590 grains of blood flowed readily into a clean cupping glass. A ligature was next passed around the Illiac vein, and on puncturing it 771 grains of blood were easily collected in another cup. The Illiac Artery, being now of easy access, was punctured, and the blood flowed in a full pulsating stream, and was received into a third cup, to the amount of 1816 grains. Up to this time the dog continued to breathe slowly, and the circulation went on vigorously; but in attempting to procure some blood from the Hepatic vein, the diaphragm was cut through, the breathing ceased, and the hepatic vein was found so empty that a satisfactory amount of blood could not be obtained. The left ventricle of the heart was then laid open and a fourth specimen of blood, to the amount of 425 grains, was obtained from its cavity. All these specimens of blood were most carefully analyzed, following in all respects the method recommended and so long practiced by Andral, and Gavarret, with the single exception of the mode of separating the fibrin. For accomplishing this most accurately, I fully agree with Mr. Bence Jones, preferring to allow the blood to coagulate perfectly, and then enclose the whole clot in a clean, firm linen

cloth, and wash it with distilled water until the red-corpuscles are entirely removed. From several trials I am satisfied that this method separates the fibrin more perfectly than the whipping or stirring with sticks, as practiced by Andral. There being nothing peculiar in the other steps of the analysis, it would be useless to detail them here. The results in tabular form are as follows, viz:

	Blood from Left Ventricle.	Bld. from Illiac Artery.	Bld. from Illiac Vein.	Bld. from Renal Vein.
	425 grs.	1816 grs.	771 grs.	590 grs.
Whole amount analyzed,				
Solid matter after separating fibrin,	78,2	341,0	145,0	115,0
Water,	345,9	1471,0	624,0	474,0
Fibrin,	,9	4,0	2,0	1,0
Albumen,	46,5	180,9	69,0	58,1
Red-Corpuscles,	34,0	150,1	71,0	54,4
Salts,	2,0	10,0	3,0	2,5

To make the differences in the above analysis more easily appreciated, I have reduced the several items to their relative proportion in 1000 parts of blood, as follows, viz:

	Blood in the Left Ventricle in 1000 parts.	Blood from the Illiac Artery in 1000 parts.	Blood from the Illiac Vein in 1000 parts.	Blood from the Renal Vein in 100 parts.
Water,	812,0	812,2	811,9	803,4
Red-Corpuscles,	81,8	82,5	92,7	92,2
Fibrin,	2,1	2,2	2,5	1,7
Albumen (fat and extractive matter not separated,)	99,4	98,1	89,5	98,5
Salts,	4,7	5,0	3,9	4,2
	<u>1000,0</u>	<u>1000,0</u>	<u>1000,5</u>	<u>1000,0</u>

The very slight variations exhibited in the columns representing the two specimens of Arterial blood, are doubtless owing wholly to the slight inaccuracies incident to all analytical processes. But the difference between the two specimens of Venous blood, or between either of them and the Arterial, are striking and highly important. Thus the blood from the Illiac vein, returning mostly from a muscular and non-secreting part of the system, exhibits a higher proportion of *fibrin* and red-corpuscles, with a much lower proportion of albumen,

than the Arterial blood; while that from the Renal vein, returning from an organ secreting copiously a highly nitrogenous liquid, exhibits a marked diminution in the proportion of *fibrin* and water, with an increase of red-corpuscles, the albumen remaining the same as in the blood from the arteries. These results so well correspond with those obtained by Simon, as already quoted, that but little doubt can be entertained of their correctness. And they point, with a force little short of actual demonstration, to the conclusion *that the fibrin of the blood is the direct result of the waste or metamorphosis of the organized tissues*, finding its exit from the system in the nitrogenous constituents of Urine, Bile, &c., instead of being the most perfectly assimilated agent destined for nourishing such tissues. Indeed, how else is it possible to explain the fact that the blood returning from an active excreting organ, like the kidney, contains less fibrin than arterial blood, while that returning from non-secreting or chiefly muscular structures, where we should suppose the greatest amount of fibrin would be used up if it were nutritious, contains a proportion exceeding that sent through the arteries to the same structures? The conclusion thus arrived at from analysis of the blood returning from different organs and tissues, also affords a far more satisfactory explanation of the increase of fibrin in diseased conditions of the system, than has been afforded by any of the more commonly received doctrines in regard to that constituent of the circulating fluids. Thus if we grant that the fibrin is derived from the decay or waste of tissues, instead of constituting assimilated matter for their nourishment, its accumulation in the blood in all inflammatory diseases, when the supply of food is cut off, the tissues wasting rapidly, and, at the same time, the nitrogenous excretions diminished, is easily understood. So, too, its existence in a full or even excessive proportion, in Aenemia, Phthisis, or any other morbid state characterized by an active capillary circu-

lation and a predominance of the decomposing or wasting process over the nutritive, is explained with equal facility. This conclusion also explains why the Urea appears as a constant and uniform ingredient in the Urinary Secretion, under the influence of all classes of diet, and even while life continues, after all diet is discontinued, and yet can never be detected during health in quantities above a mere trace in the blood itself. If the fibrin is derived from the waste of tissues, and is excreted in the form of Urea and other nitrogenous constituents of the excretions, we should, *a priori*, expect such excretions to continue, not while this or that diet was continued, but so long as the organized structures continued to undergo metamorphosis, and the secreting organs themselves continued in a condition to act. And such, observation long since demonstrated to be the fact. I do not wish to convey the impression that diet and drinks exert no influence over the quantity or quality of the urinary secretion, but only that the nitrogenized constituents, especially the Urea, "may fairly serve," to use the language of Dr. Carpenter, "as a measure of the *waste* of the tissues."

The foregoing view of the origin of fibrin also serves to explain the diversity of results which have been obtained by experiments on comparing analytically Arterial with Venous blood, the fibrin being found to predominate sometimes in one and sometimes in the other;—such differences depending undoubtedly on two circumstances, viz: first, the particular vein from which the blood was taken for analysis; and second, on the comparative activity of the *nutritive* and *disintegrative* processes.

If it was the object of this paper to propound any general doctrines, except such as strictly belong to the experimental inquiries above detailed, I should indicate the several steps of assimilation and nutrition by the formation first, of albumen; second, white corpuscles; and third, organized tissue.

While the steps of disintegration or decay, so far as the nitrogenized constituents are concerned, are, first, the formation of fibrin and extractive matter; and second; the various nitrogenized constituents of the excretions.

The generally received doctrine of the formation of all organized structures from cells, and the part which the white corpuscles play in the reparation of injured parts, constituting what M. Travers styles "*the new lymph-bed of organization*," as seen under the microscope, all tend to sustain these views. But it is no part of my present purpose to enter upon a discussion of these interesting topics. And I would by no means present this paper to the profession, until the experiments herein had been further corroborated by repetition and extension, did I not hope that by so doing others would be induced to enter experimentally the same field of inquiry.

ARTICLE III.

A Case of Sciatica treated successfully by Inoculation with Sulphate of Morphine. BY CHARLES BRACKETT, M. D., of Rochester, Ind.

The following, if you think proper, you may publish. It is concerning a case of Sciatica, (I like the shorter, and full as expressive term, in lieu of the Neuralgia Femero-Popliteæ,) of long standing, which I treated by inoculating the skin over the course of the nerve with Sul. Morphine, made into a thin paste with Croton Oil.

This was a case of some years duration, and had been treated in this country and New York without an appearance of benefit.

The patient, Wm. R., aged about fifty years, of a spare

habit but large and muscular frame, and active disposition, had suffered for the past ten or fifteen years with occasional rheumatic attacks, affecting generally his upper though often his lower extremities and back. The pain, and weakness in his back, and in the course of the sciatic nerve for the past two years, had been persistent, so that he needed the aid of a cane when walking; for the past few months he had been confined to his bed, suffering such pain as only the victim of Neuralgia has a knowledge of. I had tried most of the medicines which I thought could give him relief, both in the form of internal and external medication; at length I concluded to try this plan of inoculation, although I had not a remote idea of deriving *permanent* benefit from it, yet I could not bear the idea to give him up to the perpetual use of morphine, from which alone in large doses he found relief.

I began about the origin of the nerve, and inoculated the paste above mentioned about every four inches, down to his heel, which was as far as he felt any pain. That night he rested better than he had for a long time previously, the pain being entirely removed along the track of the inoculations; towards morning the pain attacked the Anterior Tibial Nerve, where previously it had never existed, and where it became as acute as ever it had been on the posterior part of his leg. I followed this pain up with my scarifications, putting in as much of the paste as I dared do in from four to six punctures made with the point of a thumb lancet at each place of inoculation. At this time I made my points of inoculation about three inches apart from the knee to the middle of the dorsal surface of the foot, so far as the pain existed; it ceased, and at my next visit it had appeared in the Plantar Nerves. I scarified and inoculated the sole of his foot, and from that time till his death he never suffered from any pain about that leg.

This patient, a robust Virginian, suffered more I think than

any one I ever saw. Judging from his appearance, I thought it must be truly *perfect agony* he suffered.

He lived about a year after the cure of his Neuralgia, when he died from complicated disease of the Spleen and Liver, chronic in its character. As a *post mortem* was not allowed, I cannot give the exact condition of the viscera.

Though there is nothing remarkable about this case as respects the originality of its treatment, which I do not claim for it, yet the rapid and almost magical effects of the inoculation, together with the total and permanent disappearance of the neuralgic disease, I think probably ought to place it among the first remedies to be used in this disease, the treatment of which (through necessity from an absence of a knowledge of its existing causes) so often assumes an empirical tendency. At any rate it is to be considered a valuable adjunct to other treatment.

ARTICLE IV

External Application of Chloroform in Erysipelas.

[For the following, communicated in a letter from Alfred L. Castleman, M. D., of Wis., we return our thanks, and hope our readers may be favored with frequent communications from his pen.]

I have this morning read in the N. W. Med. and Surg. Journal an article, accredited to the Ohio Med. and Sur. Journal, on the "*Accidental* employment of Chloroform in Erysipelas." As the cases cited here are too few to give the remedy much weight in the treatment of the disease, I wish to say that for some months I have used it (though not accidentally)

in the treatment of this disease, and in every instance with the most marked benefit. I at first used it combined with Olive Oil, in the proportion of three parts chloroform to one of the oil. I now, however, use it pure, unless in cases where there is much pain, when I add a little Sulp. Morphine.

I do not recommend the use of Chloroform to the profession as a remedy to be relied on in the treatment of Erysipelas. My experience in the use of it is yet too limited, and medical men cannot be too careful in bringing forward new remedies on *slight* evidence of their remedial power. I should not have made this communication but for having seen the one above referred to, and with the hope that it may call forth in your September issue any further evidence that can be adduced on this point.

June 21st, 1851.

ARTICLE V.

Extraction of Child by a Novel Process.

[Dr. Samuel Thompson sends us the following:]

I reply to an application for facts on Obstetrics for the Committee of the American Medical Association, I received from Dr. A. E. Ames, of Roscoe, the following. It came too late for its intended object—it is at your service :

“Mrs. H., in labor with 10th child; in labor 7 hours; pains very hard, progress slow. First presentation of Baudelouque; previous to labor, the labia majora and minora had become some swollen, and as labor progressed the swelling increased, in consequence of the enlargement of the parts.

The child's head being very large, completely filling up the pelvic region, and there being no prospect of a natural termination of the labor, and it being impossible to apply the forceps, I determined to perform craniotomy. After having made an incision through the scalp $2\frac{1}{2}$ inches in length, I raised the scalp and passed two fingers of my right hand under it far enough that when I made extension the force would not come against the edges of the incision; then placing my left hand against the perinæum, I made extension with my right. This had a tendency to elongate the head of the child, and aided by the pains, which were very good from the first, the child was born alive. The wound was dressed with simple dressings.

Thus may a child, in my opinion, be saved. This may not be a *new act* in Obstetrics; if it is, please place the same before the public eye.

A. E. AMES.

March 20th, 1851.

ARTICLE VI

The Uses of the Chloride of Sodium, with Notes of Cases Treated in the Illinois General Hospital. By W. B. HERRICK, M. D., Prof. of Anatomy and Physiology in Rush Medical College, and one of the Surgeons to the Institution. Reported by H. A. Johnson, A. B. and Interne.

During the spring and summer, about ten cases of well marked Intermittent fever have been treated in the Hospital by the use of Chloride of Sodium. There have also been several cases of Typhoid Fever treated by the same article. So far as it has been tried, it seems to possess valuable medicinal properties.

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icinal properties, and if future experiments should confirm the results already obtained both here and elsewhere, we may expect that in intermittents the use of Quinine will soon be superseded by this simple and cheap remedy. The observations already made are not, perhaps, sufficiently numerous to warrant a definite conclusion in regard to this agent, but in order that others may be induced to try it, the two following cases are presented.

Case First.—R. S., an English laborer, aged 21, was admitted to the Hospital June 18th. About two months since he began to feel unwell, had head-ache, pain in the back, giddiness upon rising suddenly, with chill and fever; during the last week has had an ague fit every day.

Upon examination, the tongue was found covered with a light, yellowish fur; the bowels somewhat constipated; but very little appetite; pulse small and weak; skin cold, moist and dark; conjunctiva yellow; the spleen much enlarged, with tenderness upon pressure over the region of that organ; the general appearance of the patient indicated debility.

Prof. Herrick remarked, that this case presents us with a complication very often seen. The enlargement of the spleen is the result of the congestion of that organ, repeated with the occurrence of each chill. The first indication then, is, to arrest the exacerbations. This may be done either by making an impression on the nervous system, according to the general explanation, with Quinine and Opium, stimulating it to overcome the habit into which it seems to have fallen, and thus restoring an equilibrium to the circulation, or by attending immediately to the vascular system, improving the quality of the blood, so that it may be more efficient in removing from the system effete and morbid matter, the presence of which, it is believed, gives rise to the disease before us. In accomplishing this, we shall succeed best by introducing substances to prevent the further destruction of the globules of

the blood, and at the same time furnishing the materials for the manufacture of a fresh supply of this constituent. If this can be effected, we may confidently expect, not only that the periodicity of the disease will be broken up, but that, the cause being removed, the disease itself must yield; and the system, instead of being depressed by the chemical or physical forces, must assume its wonted vigor, in obedience to the vital force, and in accordance with the laws of life. Chloride of Sodium is known to possess the property of preserving the blood globules; it is an alterative and tonic, and is also claimed to possess a specific influence in arresting the exacerbations of Intermittents. We have used it in several cases, and always with the most complete success. *R* Chloride of Sodium ʒj, in mucilage of Gum Arabic twice daily.

June 19. Had no chill since taking the Chloride of Sodium, feels much better, no head-ache—continue treatment.

June 22. Had a slight chill Friday, the 20th, but has felt well since; appetite begins to improve, tongue clean, tenderness over the region of the spleen much diminished, and some reduction in the size of that organ. Dr. H. remarked, that the disease might be considered as broken up. The only remaining indication, is to build up the system by the use of tonics and agents that favor the introduction of nutritious materials.

R Chlo. Sodii gr. X.

Ferri. Carb. grs. V.

M. Sum. three time daily before eating.

R Acidum Nitricum f ʒi.

Acidum Muriaticum f ʒii.

Aqua. Dest. f ʒi.

M. Sum. gtts. X in water after each meal.

June 25. Has had no return of chill. Appetite good, size of spleen very much reduced, strength gaining, no indications

of disease. The patient was discharged, and from this time we lost sight of him.

It will be observed that in treating this case no Quinine, Opium, Arsenic, or Strychnia was used. The Chloride of Sodium arrested the paroxysms as promptly as Quinine in ordinary doses, and the system speedily recovered its strength and vigor under the use of that agent, combined with Carb. of Iron and mineral acid. From 3ii to 3iii may be given to an adult without producing any unpleasant effects.

Case Second.—Mrs. R., an English woman, aged 30, was admitted to the Hospital June 18th. Her constitution has been robust, and her previous health good, until about three weeks since, when she became unwell, complaining at first of langor and depression, with slight chills and fever, followed in the course of a few days by diarrhoea, and still later by vomiting. At the time of her admission into the Hospital the tongue was dry, and red on the edges, with a dark crust along the centre; the teeth covered with sordes; intense thirst; some vomiting and diarrhoea, with some tenderness over the epigastric, and the right and left hypochondriac regions; the pulse small and weak; some pain in the head; a disinclination to motion of any kind, and extreme nervous prostration.

In the absence of Prof. Herrick, Prof. Evans prescribed for the case. He remarked that the case was of a Typhoid character, requiring careful and judicious nursing, with the palliation of aggravating symptoms, rather than active and energetic treatment.

The most urgent symptom of the case before us, is vomiting, which is attended with much acidity of the stomach. To correct this 3i of Bi. Carb. Soda was ordered to be dissolved in f3i of water, a table spoonful to be given every fifteen or twenty minutes until the acidity was corrected or the vomiting ceased. In addition, the patient was ordered to take mutton broth, strongly seasoned with Chloride of Sodium.

June 19. General appearance somewhat improved; tongue not as dry; vomiting ceased very soon after commencing the use of the Bi. Carb. of Soda; slept well during the night. Prof. H. prescribed Chloride of Sodium gr. x three times daily, Quinine gr. v at night, with the mutton broth as yesterday.

June 20. Still improving; continue treatment.

June 21. The bowels have not moved since day before yesterday; the tongue begins to be moist, and the black coat breaking up. Ordered Pil. Hydrarg. grs. .v, this morning; continue the Chloride of Sodium and the Quinine.

June 23. Tenderness of the bowels entirely removed; evacuations regular and natural; appetite improving; pulse full and soft; continue the treatment.

June 26. The improvement since the last date has been constant and rapid. The patient is able to walk about the ward with ease, feels perfectly well, has a good appetite, and complains only of fatigue after exercise. She was discharged with directions to keep quiet for a few days, take a good nourishing diet, and use an abundance of *salt*.

To give in detail the Professor's views in regard to the *modus operandi* of Chloride of Sodium, in cases like the above, would require more space than we feel at liberty to occupy. Its use in Typhoid cases may be regarded as a modification of the Alkaline treatment. This salt is selected, not only because it prevents decomposition of the blood, but also from the fact that in that disease, as well as Pneumonia, the chlorides in general, and especially of Sodium, are deficient in the excretions. It is hoped that others may be induced to try it, marking carefully its effects upon the system, whether favorable or not, in order that its true Therapeutic character may be determined.

ARTICLE VII.

On the Use of Cod Liver Oil in Nursing Sore Mouth. By JNO. EVANS, M. D. Prof. of Obstetrics, &c., in Rush Medical College.

The extensive prevalence in the West, of a form of disease in women, generally attending the period of lactation, which has in consequence acquired the name of "Nursing Sore Mouth," and the general want of satisfactory success in its treatment, have induced me to give the result of my observations upon its nature and management.

The disease generally affects females of delicate constitution and spare habit, in which the function of assimilation is but imperfectly performed. It not unfrequently makes its appearance in such during the last months of gestation, but much oftener during the period of lactation.

The diagnostic symptoms are a burning sensation in the mouth, as if it had been scalded, which is greatly aggravated by hot drinks, attended at first by but little redness, and followed by small ulcerations upon the tongue and different parts of the buccal cavity. In some cases, instead of these ulcers, there is a diffused redness of the mucous membrane of the mouth. These symptoms are generally attended and often preceded by a burning sensation in the stomach, pyrosis, indigestion, and occasionally vomiting. The bowels are most frequently relaxed, and in some cases an obstinate diarrhoea attends.

The course of the disease is often variable, sometimes for a few days being almost entirely relieved and again recurring. As has been observed by Prof. Brainard, it is often attended by ulcerations in the vagina and upon the mucous surfaces of the labia, which generally grow worse as the irritation of the mouth subsides, and vice versa. The wasting

of the system often continues, if the child is kept at the breast without the function of nutrition being improved by regimen or treatment, until the patient sinks and dies of marasmus and its attendant local lesions.

Nursing Sore Mouth is a disease of debility, consequent upon the marasmus produced by imperfect nutrition and the demand upon the system of gestation and lactation, and generally speedily gets well after weaning the child, unless it has continued so long as seriously to have impaired the function of nutrition. Profuse hemorrhages and copious lochial discharges, favor its development.

Treatment by a resort to medication, especially mercurial, generally aggravates rather than relieves the disease. Although in some instances symptoms may be temporarily palliated by the use of the bitter tonics, and astringents such as Nitrate of Silver, Tannin, &c., I have thought in the end they do more harm than good, as there are few if any of this class of remedies that do not, under the circumstances, ultimately act as irritants. The ulcers in the mouth may generally be promptly, but temporarily relieved, by the application to each of a little pure Muriatic Acid, applied by dipping a small point of a feather or a pencil in the acid and touching it to the ulcerated surfaces. Although they speedily heal after this application, others soon make their appearance, unless the general condition of the system is relieved.

In some instances, after having failed to relieve either the diarrhœa or irritation of the mouth by the ordinary means of treating these symptoms in other cases, I have observed a marked improvement by abandoning medication altogether, and placing the patient upon an animal diet and the free use of mucilaginous drinks.

Observing the influence of Cod Liver Oil in preventing the wasting of the tissues of the body in cases of marasmus, especially from phthisis and tabes mesenterica, it occurred to

me that its influence might be equally beneficial in the disease in question. The diarrhoea and ulcerations of the mucous surfaces being in many cases similar to those produced by the marasmus in those affections. I have accordingly been in the habit of prescribing it taken in French brandy or malt liquor, as might be found best suited to the taste or most convenient, and generally with the happiest effects. Where the patient can be induced to continue its free use, it has uniformly proved beneficial, and in most instances effected a cure. If treatment should fail to relieve the disease, a resort to weaning the child should never be deferred until the patient loses her strength so that she cannot maintain the erect position.

ARTICLE VIII.

Address, on the Remedial Properties of Alimentary Substances, and the Changes produced by Oxygen in Health and Disease. Delivered before the ILLINOIS STATE MEDICAL SOCIETY. By W. B. HERRICK, M. D., President of the Society, Professor of Anatomy and Physiology in Rush Medical College, &c., &c.

[Taken from the transactions of said Society.]

GENTLEMEN:—

This, the first annual meeting after that for the organization of the Illinois State Medical Society, is an occasion of great interest and of much importance.

It is interesting, from the fact that the number here present furnishes abundant evidence of the continued growth and prosperity of an organized body, the noble object of which is to combine and render efficient in action the talent and enterprise of our medical men, and to cherish among them feelings of brotherly love and friendship. Important, because our present meeting furnishes, as it does, the only opportunity which has ever been offered for the united action of any considerable number of our physicians, must, to a certain extent, give character, both at home and abroad, to the medical profession of our State.

The principal object of an organization like ours should be, doubtless, to furnish a medium through which medical men can reciprocally make known to each other the results of their individual observation and experience, in order that the knowledge acquired by each in their respective localities, may here become the common property of all. With the view of sustaining my part in the performance of this common duty, and in compliance with a requisition in the constitution of this Society, requiring me to deliver an address at the expiration of my term of office, I will now endeavor to perform this, a pleasant task, generously assigned me by your partiality and kindness.

On an occasion not long since, upon which I had the honor of addressing the public in behalf of our profession, it was stated as my opinion, that "the time is not far distant when the truly scientific physician will use as remedies such substances only as help to constitute in health the solids and fluids of the body."

We had arrived at this conclusion after mature reflection upon the present state of our science, and after having observed a tendency on

the part of both writers and practitioners of the present day, to regard the manifestations of disease in the human body as evidences of want of harmony in the performance of functions consequent upon excess or deficiency in some of its parts or elements which may be, and are often, more promptly restored by the addition or abstraction of one or more of its normal and proper constituents, rather than by introducing into the system, powerful and even poisonous foreign substances.

Believing, as we do, that this is the truly scientific and rational view to take of disease, and remedial agents, and that the spirit thus manifesting itself is one of improvement, indicating the approach of a new era in the study and practice of medicine, we propose on the present occasion to lay before the Society our views of the nature of certain chemico-vital changes, and of the *modus operandi* of certain medicines with the view of showing, what we firmly believe, that a majority of diseases may be cured more certainly and promptly by the use of properly chosen alimentary substances than by the administration of powerful agents under the false name of remedies; and that the animal oils—lemon juice, common salt, soda, &c.—are valuable and effective medicines, capable of restoring health in some of the worst forms of disease; and that in view of certain changes in the body, especially such as are effected by the oxygen of the air, the physiological reasons for their action, and pathological indications for their use, are plain and rational.

The views expressed by most physiological writers concerning the changes resulting from the action of oxygen in the animal body are, to say the least, vague and unsatisfactory.

According to the generally received opinion, it is taken into the system for the purpose of being combined with the nutritious materials derived from food, to form the more highly organized and perfectly animalized constituents of the blood and tissues.

In opposition to this view, we contend that digestion and respiration are antagonistic in their functions; that the most highly elaborated nutritious substances may be derived directly from food, in a form suitable to enter at once into the constitution of the most perfect organs; and that all the constituents, both of the blood and tissues, by uniting with oxygen, are passing continually into less perfectly organized forms, and hence that oxygenation is a destructive, rather than a vitalizing process. To use the words of B. Jones, "a change of one substance into a higher compound never occurs, but everywhere in the stomach and system lower compounds are each moment forming, and this chiefly for

the purpose of solution." All the phenomena, both of healthy and diseased action, are more fully and satisfactorily explained by thus considering oxygen the agent by means of which organic matter is reduced and ultimately separated from the body, as it is well known it is, in the form of carbonic acid, urea uric, acid, &c., all highly oxygenized compounds.

According to the views of Prof. Liebig, certain constituents of the food, known as the non-nitrogenized or carbonaceous, are taken into the system for the purpose, principally, of generating animal heat, by their union with oxygen; whilst others, the nitrogenized or albuminous, furnish mainly nutriment for the organs and tissues.

Admitting the correctness of these views, it is evident that in case of deficiency of carbonaceous substances with an excess of oxygen in the system, the changes which would be most likely to occur would be of such a nature as to give rise to a class of diseases characterized by excessive oxydation, whilst an opposite condition as regards the relative proportions of oxygen and oxegisical materials might produce other affections no less numerous, in which defective oxidation would be the leading characteristic.

Among those belonging to the first class are, as we believe, all highly inflammatory affections—such as Pneumonia, Pleurisy, Croup, &c., together with Rheumatism, Tubercular disease, and most affections of the skin, all of which are most common and severe in high northern latitudes, where a dense and dry atmosphere favors excessive oxydation; and of an opposite character to those which prevail in the south, where the rare and humid air, deficient in oxygen, gives rise to Yellow, Remittent and Intermittent fevers, Jaundice, malignant Erysipelas, &c., in which there is doubtless an accumulation of unoxidized effete matter in the blood and tissues.

The physiological and pathological facts which might be adduced in support of the above conclusions, are too numerous to admit of being presented on the present occasion. The most we can hope to accomplish at this time, is to give a few reasons and present some facts, such as may serve to direct the attention of medical men to the subject, and show practitioners the propriety of depending more upon remedial agents, which modify in health these changes, and which are therefore not destructive, but congenial to life.

All inflammatory affections are, according to our views, attended by

excessive oxydation. This is evident from the increased amount of carbonic acid exhaled, and the constant accumulation in the blood, during their progress, of highly oxygenized compounds, such as urea, uric acid, fibrine, &c. The most remarkable characteristic of this class of diseases, is the constant and rapid increase, during their progress, of the fibrine of the blood. This substance, according to most physiologists, is the more highly organized constituent of this nutritious fluid, formed from its less perfectly animalised ingredient albumen; whilst others, on the other hand, contend that the latter substance as compared with the former, is the most important, and that fibrine of the two, is the most nearly allied to effete matter. The latter opinion is doubtless the correct one, as is evident for several reasons, among which may be mentioned the facts, that fibrine is not an ingredient of the highly nutritious compound provided by nature in the albuminous egg; neither does it enter, in any considerable quantity, as compared with albumen, into the constitution of healthy blood—whilst it accumulates rapidly during the progress of diseases in which there is defective action in the assimilative and excretive functions.

In support of this view we have also the analysis of Muuler, who found more fibrine in the oxygenized arterial than in the carbonized venous blood. The experiments of Marchal, showing an increase of this element in blood drawn from a vein under the influence of heat, such as would favor oxidation; those of Becquerel, by which it appears that albumen diminishes rapidly during the progress of diseases, such as Pneumonia, Pleurisy, &c., in which fibrine increases; and the fact stated by Hassall, in his *Microscopic Anatomy*, of the human body, where it is asserted that “the true cause of the fatality which has so often attended the operation of transfusion, depends upon the difference which exists in the qualities of the fibrine in the blood of two different animals, or even of two distinct individuals. This is shown by the fact that the transfusion of blood deprived of its fibrine, is never followed by the serious results to which reference has been made.”

Hence we conclude that fibrine is like most other morbid constituents of inflammatory blood, a deleterous compound resulting from excessive oxidation consequent upon causes favoring chemico-vital changes, and that one of the most important indications in the treatment of all inflammatory affections, is to prevent oxidation and the accumulation in the blood of oxygenized substances.

Taking this view of the subject, we can explain more easily and phe-

Iosophically, the *modus operandi* of the remedial agents, which have been found by experience, to be most efficient in this class of diseases.

The amount of oxygen taken into the system, is always in proportion to the number of globules in the blood, as has been shown by numerous experiments; hence it is that venesection, by diminishing the number of these globules and consequently the amount of oxygen in the circulating fluids, diminishes also its power of acting upon the blood and tissues, and thus becomes in the hands of an eastern physician treating the pure Pneumonia, such as occurs in the dense atmosphere and plethoric patients of New England, one of the most prompt and efficient remedies. Whilst here in the West, where this disease is more or less complicated and mixed with those of an opposite class, the miasmatic, the practitioner, who by frequent bleedings, should abstract globules from the impoverished and carbonized blood of his pneumonic patient, would be treating a name, rather than the disease. In all inflammatory affection the rule should be, doubtless, to avoid blood-letting wherever there is a tendency to miasmatic or other diseases, in which there is defective oxidation, and to use it boldly, in cases of an opposite character, in which the blood rich in globules contains no excess of carbon.

The action of Opium, another very efficient remedy in inflammatory affections, can also be made to harmonize with our views; for it must be admitted by all, that in proportion as respiration and the circulation are made sluggish by its use, the changes resulting from oxydation would be less rapid and extensive, and experience shows that its action in subduing this class of diseases is more or less marked, in proportion to its effect upon these functions.

In all cases of local inflammation in which there is impoverished and carbonized blood, as in Billious Pneumonia, Hepatitis, Sub-Acute Gastro Enteritis, and similar diseases of the West and South, opium is by far a better remedy than blood-letting; because, by acting in the manner above stated, it lessens the excessive local oxydation of albuminous compounds without depriving the blood of its globular element required in such cases during convalescence for the oxydation and elemination of carbonaceous materials. Hence the difference of opinion among physicians as to the comparative value of these two remedies.

The affections in which treatment with the view to prevent oxydation is plainly indicated, and most efficient, are those of the skin, resulting either from injury or from other causes. This is evident from the well known fact, that remedial agents which most effectually exclude the at-

mosphere from abraded, diseased or injured surfaces, are the best local remedies in such cases. Hence it is that such applications as Collodion and Gutta-percha, prevent the pitting in small-pox, stop the spread of mild erythema, favor the union of wounds, and subdue measurably the pain and inflammation of blisters and burns; and hence it is that inunction with fats and oils has been found, both in this country and in Europe, one of the best means for allaying the heat and irritation in Scarlatina and Rubeola.

Excessive oxydation of the important constituents of the body, according to our views, may result either from an excess of oxygen, or from a deficiency of hydro-carbonaceous substances, requiring in the one instance the exclusion of oxygen, and in the other the introduction into the system of oxydisable materials. All purely inflammatory affections belong doubtless to the first class, and are therefore threatened properly when we protect highly inflamed surfaces from the atmosphere, or abstract blood, and thus lessen the amount of oxygen taken into the system by diminishing the number of its carriers, the globules; whilst those of less active nature, such as Phthisis, Tabes Mesenterica, and the like characterized by defective nutrition, require a good nutritious, albuminous diet to serve as nutriment for the broken down organs and tissues, together with an abundant supply of respiratory food, such as will by its affinity for oxygen, prevent most effectually the further excessive oxydation of the more important constituents of the blood and tissues.

In support of these views, of the effect of hydro-carbonaceous compounds in preventing the destructive oxydation of the albuminous constituents of the body, we have the experiments of Dr. Brecker, showing that the use of sugar, alcohol, wine, &c., diminishes the amount of lithates, phosphates, and other animal excretive matters in the urine; also the fact stated by Dr. Chambers, that the use of food constituted principally of fats and oil, reduces the amount of nitrogenized constituents in all the excretions.

From the above facts, we learn why it is that compounds such as Cod Liver Oil, constituted principally of carbon and hydrogen, are of all others the most useful remedies in diseases in which there is an impoverished condition of the blood, resulting either from excessive oxydation, morbid action, or defective nutrition.

It was our intention to give in this connection, a history of a few of the most important cases treated by myself and others, with the view to prevent oxydation in the manner above stated, by the use of Cod Liver

Oil. But we find that such details cannot be entered into in the limited time allotted to us on the present occasion, and that we can only state what we know from personal observation and experience, that for all chronic affections characterized by defective nutrition, such as Tubercular Disease of the Lungs, and Mesenteric and other Glands, Chronic Bronchitis, Tumefaction and Ulceration of the Throat or Tonsils, Scrofulous Ophthalmia, &c., the Cod Liver Oil is by far the best and most efficient remedy known, especially when used in connection with exercise in the open air, and a good nutritious diet, to the exclusion of cathartics, calomel, and other debilitating agents, worse than useless in this class of diseases.

The organic acids constitute another class of simple, yet in many cases active remedies, nearly allied to the animal oils, both in their application and mode of action. This is what might be anticipated in view of the following facts, stated by Prof. Liebig, in his recent work on the Chemistry of Food: "From analysis," says he, "it appears that the non-nitrogenized acid, occurring in the animal organism, is identical with the acid formed in milk when it becomes sour, and into which sugar of milk, starch, grape sugar and cane sugar, are converted by contact with animal substances in the state of decomposition." Concerning the use of this acid he says: "The urine of healthy men, which has an acid reaction, contains no lactic acid, and no substance from which lactic acid can be formed during putrefaction of urine." * * "From this it plainly appears, that the lactic acid, in the organism, is employed to support the respiratory process, and the function performed by sugar, starch, and in general all these substances which in contact with animal matter, are convertible into lactic acid, ceases to be an hypothesis. These substances are converted, in the blood, into lactates, which are destroyed as fast as they are produced, and which only accumulate when the supply of oxygen is less, or where some other attraction is opposed to the agency of that element."

In view of the above facts, it is evident that the use of the organic acids, especially the lactic, is indicated in diseases such as Rheumatism, Gout, &c., in which there is an excess of lithic, oxalic, and other excrementitious acids, as the effect of a too rapid conversion of the nitrogenized constituents of the blood and tissues into these highly oxygenized compounds.

The indications in the treatment of such cases are doubtless first, to prevent the too rapid formation of these compounds, by the use of a

remedy—an organic acid for instance—which by its affinity for oxygen will most effectually prevent its excessive action upon the more important constituents of the blood and tissues; and secondly, to remove from the system these deleterious substances by the administration of an alkali which, by its union with the lithic and other acids, will produce soluble salts, such as can be more easily and readily taken up and discharged by the kidneys.

This two-fold object may be accomplished in some cases by the administration of salts, containing both the acid and the alkali, such as Tartrate of Potash, or Lactate of Soda, and in others by the use of either the acid or alkali, according to the indications. Hence it is that the saline, alkaline and acid treatment for rheumatic affections, have each in turn had their advocates. It is a fact worthy of note, that our views are sustained by two classes of writers, apparently opposed to each other—one contending for the alkaline, the other for the acid treatment of Rheumatism. Concerning the alkaline treatment, we find the following statement in a report of the treatment of disease in King's College Hospital, London :

“An unusual number of cases of Rheumatic fever have lately been admitted into Dr. Budd's ward; we noticed no less than six at the same time; with all of whom the alkaline treatment was successfully employed.” This treatment, we may remark, consisted in the free use of bicarbonate of potash, both internally, and as a lotion upon the surface of parts affected.

Upon the use of organic acids, a recent number of the London Lancet contains the following statement, under the head of “Acute Articular Rheumatism treated with Lemon Juice.”

“At Guy's Hospital, Dr. G. Owen Reece has introduced a method of treatment which amply deserves notice, both on account of its great simplicity, and the success which has attended it.” In a subsequent number of the same periodical, Dr. Reece himself says in regard to this treatment: “My continued experience has but the more persuaded me, of the great value of Lemon Juice as a remedy for Rheumatism. Its action is sometimes most remarkable, causing cessation of pain and decrease of swelling and redness, such as we can rarely obtain with colchicum, even when administered in large and hazardous doses.”

Should this simple medicine stand the test of time, as we believe it will, so as to enable the practitioner to avoid half poisoning his patients

with colchicum, stupefying them with opium, or enervating them with calomel, a great boon will be conferred upon the conscientious physician, and upon suffering humanity.

Our views of this disease harmonize fully with those entertained by my colleague, Dr. Blaney, to whom is due the credit of having first suggested the use of Lactate of Soda, as a remedy for Rheumatism, with the view, as we suppose, of affecting directly or indirectly the removal of comparatively insoluble compounds, as for instance the phosphate of lime, by the production of two more soluble salts, such as the lactate of lime and phosphate of soda.

Another explanation of its mode of action which might be adopted is, that the lactate of soda constituted of an acid always present in the juice of flesh, combined with an alkali never absent from the blood, furnishes the two normal constituents which are deficient and therefore needed in this class of diseases; the lactic acid to combine with oxygen to form carbonic acid and water, and the soda to unite to form salts with the excess of acids, and thus destroy their deleterious properties and favor their excretion.

Whatever the true explanation of its mode of action, there can be no doubt of the value of this remedy in rheumatic affections, as might be shown, if time would permit, by the history of several cases treated by myself and others—one in particular under the care of Dr. Bird, which had remained unyielding under the most approved methods of treatment for years, was to all appearances permanently cured by the use of sour milk neutralized by the carbonate of soda.

Thus far we have endeavored to show that certain diseases are to be treated with the view to prevent oxydation, and that many of the remedies which have been found most efficient in effecting this object, are simple and common, composed frequently of substances, the absence of which in the blood and tissues, constitutes the pathology of the disease.

We will now present our views of the nature and treatment of another and opposite class, the pathology of which is, as we suppose, defective oxydation and an excess of carbonaceous material in the blood and tissues.

The miasmatic diseases, such as Yellow, Billious, Remittent and Intermittent fevers, belong to this class, as we believe, for the following reasons. They originate always, in localities and under circumstances least favorable to oxydation, such as low, damp situations, covered with an atmosphere, saturated with moisture, and constituted in part of carbonic acid, sulphuretted and carburetted hydrogen, and other gases such

as deteorate the air, both by their poisonous qualities and by their affinity for oxygen. The effect of such an atmosphere in preventing due oxydation, and hence the elimination of carbonaceous and other excrementitious matter, is made evident by the dark and sallow complexion of miasmatic patients, by post mortem appearances and by chemical analysis. So too the Symptoms, especially those indicating nervous derangement, are such as would naturally result from sluggish and irregular action of the brain and nerves, for want of a proper interchange of constituents by destructive oxydation and reparative deposition, without which no organ can properly perform its functions.

That this is true of the nervous system is proven by the well known fact, that the phosphates derived principally from nervous tissue are in excess in the urine during the progress of inflammatory affections of the brain or nerves; whilst on the other hand, there is a deficiency where defective mental and nervous action is indicated by a torpid intellect and blunted sensibility, facts clearly indicating that in one class there is excessive and in the other defective oxydation of nervous tissue.

As additional evidence of the correctness of these views, we will state that to our mind, many physiological as well as pathological phenomena, are more fully and satisfactorily explained by thus viewing cerebral and nervous action, as coincident with, if not dependent on oxydation.

The most remarkable characteristic of the nervous system, is a periodical tendency to action and repose, resulting evidently from circumstances which produce at one time a more, and at another a less rapid interchange of its constituents, causing the mind to vibrate with the regularity of a pendulum, between the activity of day, and the forgetfulness of night.

In order to explain the physiology of sleep, we must take into consideration the fact that during the day, a comparatively large amount of the inspired oxygen is required to sustain the action of the muscles, brain and nerves; and hence less is left free to combine with carbonaceous materials, which, therefore, go on accumulating till ultimately when night comes, their affinity for oxygen (being as in many other instances in proportion to quantity) is stronger than that of the albuminous compounds of which the nervous and muscular tissues are principally constituted; hence there is temporary suspension of mental and muscular action in the form of sleep; until, by the continued oxydation and elimination of this respiratory food it is reduced again to the point compatible with renewed mental and bodily action. The light and



heat of day, which in favoring chemical action, have an opposite effect to that of the low temperature and darkness of night, influence doubtless these changes, but to what extent remains to be determined by future observation and experiment.

It would be an interesting and important point to determine, how far the above explanation of physiological phenomena would apply to certain pathological manifestations, such for instance as the periodical tendency to alternate excessive and defective action in Miasmatic Fevers, Intermittent Head-ache, Neuralgia and the like. If for instance it can be shown, that the cold stage of an ague, is but the effect of an accumulation of carbonaceous and other oxydable matters to such an extent as to suspend for a time the healthy action of the brain heart and blood-vessels, and that the subsequent febrile excitement is an effort of nature to throw off this superabundance of such matter, by temporary excessive chemical action, it follows that in this and all other diseases of the same class, the object of treatment should be to favor oxydation.

That this is in fact the true indication in the treatment of Miasmatic diseases, is shown by the unusual amount of highly oxydized effete matter discharged from the system during recovery, by the well known curative effects of pure air, and of remedial agents such as Iron, which favor oxydation by increasing the globular element of the blood.

It is more difficult to explain the *modus operandi* of certain other well known remedies, such as Quinine, Cinchonine, Strychnine, &c.; yet if we take into consideration their chemical nature in connection with certain chemico-physiological facts stated by Liebig, we can form an hypothesis, which, to say the least, will explain their mode of action better than any other yet offered.

"The blood-vessels and lymphatics," says this author, "contain an alkaline fluid, while the surrounding fluid, that of the flesh, is acid; the tissue of which the vessels are composed is permeable for the one or the other of these fluids. The constant occurrence of Chloride of Sodium and Phosphate of Soda in the blood," (having an alkaline reaction,) "and that of Phosphate of Potash and Chloride Potassium in the juice of flesh," (having an acid reaction,) "justify the assumption that both facts are altogether indispensable for the processes carried on in the blood and in the fluid of muscles."

"It is easy to foresee," to use the words of this distinguished chemist, "that a more exact study of the influence which alkalies, salts, and mineral acids exert on the respiratory process, in the normal state, must

lead to the most beautiful and valuable results, in regard to their employment in various diseases." It is a remarkable fact worthy to be taken into consideration in connection with this subject, that as a general rule the organic acids are the most efficient remedial agents in rheumatic affections, and other diseases of that class, in which, as we contend, there is excessive oxydation; whilst those of the opposite character, as the Miasmatic Fevers, are treated most effectually with the vegetable alkalies, such as Quinine, Cinchonine, &c., either alone or in-combination, not with the organic, but with the inorganic acids.

Whether these remedial agents favor oxydation by combining with, and removing acids, or by what chemists call catalysis, is a question of much physiological interest, but of little practical value, as affecting the general principle which the above facts seem to establish, that alkalies, especially those derived from the vegetable kingdom, are as a class, the proper remedies for the diseases under consideration.

Chloride of Sodium is a well known simple article, in common use, which, with our old notions of heroic treatment, would never have been suspected of possessing medicinal properties, yet modern efforts to devise means by which to avoid poisoning our patients, have resulted in the discovery that common salt may be and is used, for other and more important purposes than that of making food palatable, as will appear from the following statement taken from a recent periodical, concerning the use of this new and simple remedy.

"Prof. Piorry, in reporting to the Academy of Medicine (Paris) upon the proposed use of table salt in intermittent fevers, states that if administered in doses of two table-spoonfulls it will not only arrest the disease, but also exert upon the spleen as marked effect as quinine does. In twelve cases of intermittent fever, the salt uniformly arrested the paroxysms, and lessened very materially the size of the spleen. The spleen was also found to diminish when the remedy was given, in cases of typhoid fever."

Before meeting with the above, our attention had been called to this remedy, by my colleague Dr. Brainard, who in view of its well known effects in preventing decay and the destruction of blood globules, was induced to administer salt, in some cases of Pneumonia, attended with great prostration and copious brick-dust expectoration. The effect of this treatment in relieving all the unpleasant symptoms, and especially in changing the character of the sputa, was prompt and satisfactory.

More recently other cases of the same, and some of a different char-

acter, have been treated with this remedy in the Illinois General Hospital under our direction, with results equally satisfactory.

A case of Jaundice, for instance, in its worst form, improved rapidly under the use of mutton broth, nearly saturated with salt. Another most unpromising case of an emigrant direct from Germany with ship fever symptoms, improved more rapidly and got well sooner, under this treatment, than any case of the kind I have ever seen of the same severity.

In order to show the importance of this substance as an article of diet, and hence its value as a remedial agent, we will give one other short quotation from Liebig's valuable work on the Chemistry of Food

"In inland countries the food does not contain common salt enough to produce the phosphate of soda necessary for the formation of the blood, then more salt must be added to the food. From the common salt is produced in this case, by mutual decomposition with phosphate of potash, or with earthy phosphates, the phosphate of soda of the blood. That the phosphate of soda is indispensable to the normal constitution of the blood, and that the processes which go on in that fluid cannot be replaced by phosphate of potash, seems to me, to be an opinion justified by the properties of these two salts."

Such being its physiological importance, the conclusion, as it seems to me, is inevitable, that it must be an efficient remedy in certain pathological conditions; such, for instance, as an undue accumulation of acid, for want of oxygen to burn up the lactic, or of soda to neutralize the phosphoric and other acids.

The acids in the blood and tissues, according to the author above quoted, are shared by the alkalies soda, potash, &c., so that the amount of free acid present must stand in a definite relation to the quantity of the base; hence where there is an excess of free lactic acid from defective oxydation, or of others from undue accumulation, common salt may be administered with the view of providing soda to neutralize some and combine with others, to form easily eliminated soluble salts.

It would appear, then, that the diseases in which this remedy is indicated, are those in which there is an excess of acids, and in which a sallow and dark complexion and brick-dust expectoration indicate the escape of the coloring matter of the blood, from ruptured globules; which, as has been shown by numerous experiments, are destroyed by acids, and preserved by saline and alkaline solutions.

We have been thus particular in expressing our views of the action

of the Chloride of Sodium, with the hope that others may be led to try its effects, believing, as we do, that this the most essential perhaps of the inorganic constituents of food, and we may say of blood, will prove ultimately one of the most valuable and efficient of the remedial agents.

In the preceding remarks, we have attempted to combine and harmonize a few of the most important modern discoveries and recently observed facts, with the view principally of showing the importance of having the science and practice of medicine keep pace together, and go hand in hand in the march of improvement, in order that each may by turns support and guide the other through the obscure and intricate path leading in our profession, to knowledge and truth.

Since the discovery of the important relations existing between vegetation and the chemical constitution of soil, no well informed agriculturist would think of bettering the condition or of promoting the growth of a sickly tree, in any other way than by removing unnatural and exuberant bark and branches, and supplying its roots with an earth containing all the proper constituents for its body and fruit; neither should we with our present knowledge of the dependence of healthy action upon proper nutrition, neglect to apply in practice each newly acquired fact, by which we can the better determine how to harmonize vital action, by adding healthy and abstracting morbid constituents of the body in a manner as near as possible as nature dictates in her unaided and healthy performance of those functions.

Having now occupied all the time we feel at liberty to take on the present occasion, with what is in truth nothing more than a brief and imperfect numeration of a few only of the facts and arguments which might be adduced in support of our views upon several subjects, each of which might properly have claimed the whole of our attention, and having as we trust, to some extent at least, sustained our position, we will now, in conclusion, renew the assertion, that in our opinion the time is not far distant when the truly scientific physician will use as remedies such substances only as help to constitute in health, the solids and fluids of the body.

Even now, the best informed and thinking men of our profession, are beginning to practice in accordance with these views, learning as they are from reason and daily experience, that the best materials with which to repair a broken fabric, are those used in its construction by the Great Master Builder.

Case of Puerperal Convulsions. By J. A. PRESTON, M. D.,
of Hartland, Wisconsin.

Mrs. ——— was taken in labor Thursday morning, July 24. I was sent for and arrived about 3 o'clock P. M. As the pains were then slight, no examination was made until 6 o'clock. At this time the pains become more frequent and severe, promising a speedy accomplishment of the labor. The os uteri was well dilated, the head presenting in the first position and occupying the superior strait.

The patient, whose age was 28, was primiparous, possessed a well marked nervous temperament, with a strong predisposition to cerebral determination. During the night, the pains continued at quite regular intervals, but were wanting in strength and efficiency. Labor went on well, or at least without any unusual complication, until 2 o'clock Friday morning, when she was seized with a very severe convulsion. So far as I was able to ascertain, there was not the slightest premonition of the phenomena which followed. After using such immediate measures as seemed to me proper, I sent for such counsel as I knew to be provided with forceps. I have a pair of Bedford's beautiful instruments, but the distance to my house determined me to send for the nearest assistance. A second convulsion more severe than the first induced me to decline the hazard of waiting for means which might come too late; I therefore took the responsibility of delivering the child forcibly.

Up to this time my efforts had been directed entirely toward equalizing the circulation. Sinipisms were applied to the feet, ankles and arms, and cold water was poured from a height upon the head. Bleeding did not appear to be indicated, and as it was subsequently practiced without good results, I think no benefit would have accrued from its earlier

adoption. Yielding to the conviction that nothing but immediate delivery would avert a fatal issue, I perforated the foetal cranium, and delivered without difficulty a dead male child. The result did not justify my anticipations, as the convulsions continued apparently, though probably not really unaffected by the delivery.

Of this part of my practice, I shall attempt no further defence, than the foregoing statement of facts. I can only say that under the circumstances I yielded to what I conscientiously believed was an imperative necessity. After the arrival of counsel the same remedial measures were continued vigorously, and after a third or fourth convulsion as the pulse became more fully developed, the patient was bled 3x. It was deemed advisable also to give Assafoetida, but from the excessive irritability of the stomach it was rejected and not again repeated. At this time it was proposed to try the effect of Opium internally, but the proposition was overruled by counsel. The convulsions continued for twelve hours with little abatement, the patient lying in a comatose state between the paroxysms. The water treatment was continued, and the bowels had been moved by emmata of Castor Oil, Turpentine and Milk. At this time, as the patient's strength seemed rapidly waning, the case was looked upon as hopeless; this opinion was concurred in by other intelligent counsel which had arrived. It was determined, however, as a *derrnier* resort, to try the effect of the warm wet blanket, and a liberal dose of Opium per anum. The warm blanket was applied, grs. v. of Haskell and Merrick's Powdered Opium administered by injection, and developments anxiously awaited. Soon after the exhibition of the opium, which was some two hours after the occurrence of a paroxysm, there was a pretty severe convulsion, though from the brief interval which had elapsed the primary operation of the narcotic could not have been the exciting cause.

There was only one or two more slight convulsions, making some twelve in all. The pulse grew firmer and steadier as the action of the opiate became manifest, the skin was bedewed with copious moisture and refreshing sleep followed. The lochial discharge, aided by the water treatment, was duly established, lactation commenced on the fourth day, and during the week which included the whole period of my attendance, there was not the slightest evidence of fever or visceral inflammation. This happy result, I have no doubt, was chiefly attributable to the sustaining power of the Opium, and the equalizing influence of the general fomentation.

The result of the case as regards the mother, certainly, was most happy, and under all the circumstances—though I would scorn to screen myself from deserved censure—I can hardly feel called upon to regret any part of my course. It has caused severe animadversion by consequence of misrepresentations, made no doubt to answer ulterior purposes. But the cause of truth will never suffer *permanently*, by the aspersions of malice. Candor may sometimes compel us to make confessions little flattering to personal vanity, but self aggrandizement is not the legitimate aim of philosophy. The physician who cannot afford to confess a wrong must have but few successes to boast. Hippocrates has had the honesty to confess that he once mistook a suture for a fracture of the skull—a confession which Cullen remarks does him more credit than his most brilliant discovery.

August 13, 1851.

[The good effects of Chloroform and Ether in cases of the description given above, and the promptness of their action, have commended their use to the favorable consideration of the profession; and where they have been tried it has generally been with the happiest effects. In a large proportion of the cases, their use and the Anodyne treatment are plainly indicated.—Ed.]

Cass County (Mich.) Medical Society.

The Medical Society met pursuant to adjournment. Dr. David E. Brown was called to the Chair, and Dr. A. Garwood was appointed Secretary.

The Society adopted a Constitution, By-Laws, code of Medical Ethics and a Fee Bill, which were reported by Committees that were appointed at a previous meeting.

The following members were present at the organization:

Drs. D. E. Brown, J. Allen, E. H. Keables, L. Tompkins, E. Reading, B. Wells, H. Lockwood, A. Garwood, E. Penwell, J. G. Bugbee, E. J. Bonine, T. Brayton, and L. K. Raymond.

After the above named Physicians signed the Constitution, on motion of Dr. H. Lockwood, the Society proceeded to elect its officers, who were chosen as follows, viz:

President, Dr. D. E. Brown; Vice President, Dr. H. Lockwood; Secretary, Dr. A. Garwood; Treasurer, Dr. E. Penwell; Standing Committee, Drs. J. G. Bugbee, J. Allen, and B. Wells.

On motion of Dr. Wells, it was

Resolved, That the proceedings of this meeting be published in the National Democrat and North Western Advocate.

On motion of Dr. Bugbee, it was

Resolved, That the proceedings be published in the Boston Medical and Surgical Journal, and in the North-Western Medical and Surgical Journal.

On motion of Dr. H. Lockwood, the Society adjourned to meet on the first Monday in November next, at Edwardsburg, at 10 o'clock A. M.

D. E. BROWN, *President*.

A. GARWOOD, *Secretary*.

Cassapolis, Aug. 14, 1851.

Part 2—Reviews and Notices of New Works.

ARTICLE I.

Experimental Researches, Illustrative of the Functional Oneness, Unity, and Diffusion, of Nervous Action; in opposition to the Anatomical Assumption, of Four Sets of Nerves, and a Four-fold Set of Functions, and Transmitted Impressions; with a brief Exposition of the Philosophy of Vivisection, and of Sensation. By BENNET DOWLER, M. D., of New Orleans, &c.

We have, through the politeness of the author, received a pamphlet with the above title, reprinted from the N. O. Med. and Surg. Journal.

Dr. Dowler is one of the few men in our country who have the temerity to doubt the correctness of the theories of "the most distinguished authors," and to publish the results of his own observations when they lead to conclusions at variance with those theories. He, too, is one of the few men in our profession who have the application and ability combined, to prosecute extensive and important original investigations. We know of no one in our country who has been more indefatigable in his labors, or who has developed more striking results. His observations upon post mortem heat, post mortem circulation, previous papers upon the Nervous System, with others of importance and interest, had already gained for him a distinguished position, and the paper before us can but add another sprig to his laural wreath.

As is generally the case with original observers and thinkers, Dr. Dowler has come in for a full share of the animadversion of the critics. He has been sneered at for being remark-

able for striking discoveries, and his language has been censured for its peculiarities of style, and strong expressions.

But who has a right to condemn facts for their novelty? especially when developed in a new field of observation, as many of Dr. Dowler have been. And who can express strong ideas and forcible arguments without the use of correspondingly strong language?

To give a correct idea of the paper before us, it would be necessary to reprint the whole article, but this we are sorry our limits forbid us to do. We must, therefore, be content with a mere notice of some of the important conclusions to which the author arrives.

In a former paper, Dr. Dowler reported a series of experiments upon Alligators, by which he arrived at the conclusion that the different parts of the animal were endowed with their due proportion of the sensorium, which seemed to be satisfactorily proved by the fact that the decapitated body moved intelligently in the removal of irritating bodies when applied, as fire, &c., directing its feet so as to remove them, and when unable to succeed it would roll over always from the irritant. In the paper before us the same position is again demonstrated, and the diffusion of the sensorium apparently redemonstrated by experiments upon the same animal.

In addition to this demonstration, by dividing the nerves of the extremities so as completely to interrupt the connection with the spinal cord, hours after the decapitation of the animal, the Doctor found that muscular motions were excited by compression of the nerve upon the distal side of the point of division; but no impression seemed to be made by compressing it on the other side of the division. From this and other facts, it is inferred that the peripheral portion of the nervous system is the more important, and acts, to some extent at least, independent of connection with the centres. By tracing the nerves toward the extremities, he found that the nearer

he approached to the point of ultimate distribution the more active were the muscular twitchings and contractions, that were excited by their compression.

The tail of the animal after the division of the spinal cord at the point corresponding to the sacral region in man, and the passage of a probe down the caudal canal without any effect, manifested sensation and intelligent motion as evinced by its moving. "If a piece of ignited paper approached its right side it swayed itself to the left, and so of the contrary." In the two animals vivisected, one was decapitated at first, and the other the brain and spinal cord were destroyed with like general results. The tenacity of life in reptiles makes them better adapted to such experiments as have been performed by Dr. Dowler, than any other class of animals, and to this circumstance he owes much of the success of his experiments.

His conclusions that the sensorium is diffused, and that the nerves are more than mere conductors, seem to be strongly supported by his experiments and arguments; but the part of his paper arguing the functional oneness of the nervous system, we think based upon a more doubtful foundation. His quotations from Magendie to prove that the anterior and posterior roots of the spinal nerves are similar in function, should have been accompanied by an account of the equally recent, and, to say the least, fully as reliable experiments of M. Longet, who, while acknowledging the great difficulty of the experiments, (but great difficulty does not constitute impossibility,) satisfactorily demonstrated to a committee of the Academy of Medicine, and to his classes again and again, that compression of the anterior roots of the spinal nerves of the dog produced motion but no sensation, while a slight touch of the posterior roots invariably caused the animal to yell from pain. This, with the experiments of Sir Chas. Bell, and others, should at least offset the statements of M. Magendie in refer-

ence to the results of his experiments, until they shall be confirmed by others. And if there is no perceptible anatomical difference in the structure of nerves, the fact does not prove the unity of their functions against such evidence as that demonstrated to the Academy and to his classes by M. Longet, in corroboration of the doctrines of Sir Charles Bell. But it must be confessed, that it is remarkably difficult to prove conclusively a doctrine that has obtained such universal sanction that one almost stares to hear it doubted; and if Dr. Dowler shall not be able to prove the functional oneness of the whole nervous system, he may do good in setting us to work at hunting up the reasons why we believe that the nerves of sense are peculiar, as the optic, olfactory, &c. are thought to be, and why we believe some nerves are for motion and some for sensation exclusively.

The remarks upon the philosophy of Vivisection are judicious and well timed.

The author seems to be somewhat fearful of the critics, and indulges in what we hope to be an unnecessary foreboding of neglect, and somewhat like the boy in the dark, whistling to keep up his courage, he concludes his article as follows:

“ Unlike a prisoner at the bar, an innovator has this consolation, namely, that if the present jury shall condemn him, unjustly, he can look with confidence to a future one, which soon, or late, will do him, and itself, justice, by embracing the truth; although, probably, for a time,

“ It will be found upon examination,
That Satan has the largest congregation.”

• • • • •
“ A hundred cities claimed a Homer dead,
Through which a living Homer begged his bread.”

An elegant writer, however, takes a view somewhat different: ‘An author,’ says D’Israeli, ‘must consider himself as an arrow shot into the world; his impulse must be stronger than the current of air that carries him on—else he falls.’ The plenitude of an author’s complaints must appear, to such

as will not accept his contributions, as the veriest of all platitudes. A medical critic, in a foreign Review, says, upon this topic, 'that it is the invariable rule, to invoke the over-worked shades of Harvey and Galileo as illustrations.' "

ARTICLE II.

AMERICAN MEDICAL ASSOCIATION.

Report of the Committee on Practical Medicine. AUSTIN FLINT,
M. D., Prof., &c., Chairman.

In our last we promised to give a more extended notice of this document. We now proceed to redeem that promise. As has already been observed, the report is systematic and well written—taken altogether we think it decidedly the best report upon the subject that has yet been submitted to the Association.

It commences by an account of the important improvements in the treatment of individual diseases. In his classification he follows the nosological arrangement of Dr. Goode, beginning with the diseases that affect the Digestive Organs.

Treatment of Dysintery by injections of the Nitrate of Silver, is well advocated by various authors, in the report. Among them are Dr. Lewis Slusser, of Ohio; Dr. Thweatt, of Va.; Dr. McGugen, of Iowa; Dr. Matthews, of Ind.; and Dr. N. A. J. Riddle, of Alabama.

Its treatment by the free use of Morphine, is advocated by Dr. Tullis of Troy, and Dr. Murphy of Cincinnati, Ohio; and by Dr. J. D. Trask, of N. Y.

Mr. Mussey, of Cincinnati, O., has found the granulated Tin an efficient remedy in Ternia.

Dr. Dawson, of the Commercial Hospital, Cincinnati, has reported his experience of the institution in the use of Wood Naphtha in Diarrhœa, which shows very favorable success.

Doctor Jewett, of Maine, reports a case of Icterus treated by Sulph. Manganese with prompt success. But there is no disease (or symptom) more liable to deceive, as it often very rapidly recovers by the unaided efforts of nature.

First among the articles upon diseases of the respiratory Apparatus noticed, are those of Prof. Ware, of Boston, on Croup, which are regarded as important.

The use of Nitric Acid in Asthma, has been recommended by Dr. Hopkins, of Georgia. He gives from five to ten drops three times a day in syrup or water.

The subject of withdrawing fluids from the chest by means of an Exploring Trochar and Canula attached to an exhausting pump, as practiced by Dr. Bowditch, of Boston; the use of Cod Liver Oil and the inhalation of Medicated powder, as recommended by Dr. Cornell, of Boston, close this part of the subject.

In reference to the management of diseases affecting the Nervous System, the report notices the accounts given by Dr. Guerard of S. C., and Dr. Satterlee of Wis., of the treatment of Hydrocephalus by the exhibition of Iodide of Potassium, in which its virtues are highly recommended.

Dr. Glenn, of S. C., and Dr. Gantt, of Md., have both treated Tetanus successfully with the Cannabis Indica.

Dr. Lebby, of S. C., has treated four cases of the same formidable malady successfully, by inducing Mercurial Salivation.

Dr. Smith, of N. J., has treated a case of Traumatic Tetanus, in which the beneficial effects of Chloroform were manifested.

Dr. Hook, of S. C., has treated a case of Sciatic Neuralgia by the application of Chloroform to the part by a satura-

ted cloth, in which the relief was prompt and permanent. Dr. Holmes relieved a similar case by administering the same remedy internally.

The only notice in reference to the treatment of diseases of the Genito-Urinary organs, is the of treatment of Spermatorrhœa by Strychnine and Veratria Ointment, recommended by Dr. Campbell, of Georgia.

In reference to Typhoid fever the report is fuller, and quotes various authors, giving diversified modes of treatment.

We are well satisfied with the success that has attended the treatment of Typhoid fever with well salted animal broths, with but little medicine, in the Illinois General Hospital. Our limits will not allow a full synopsis of this part of the report, although it is very interesting.

Different authors bear testimony to the success of inunction in Scarlatina, as practiced by Dr. Schneeman. We have in several cases seen its good effects.

Notice is made of the treatment of Rubeola by the same means as proposed in an article we published last November.

Dr. McGirr's article on inoculation in Rubeola, receives an extended notice.

Dr. Bell, of Louisville, Ky., prefers as an *ectrotic* in Variola, a strong mercurial ointment, with two drachms of starch to the ounce.

Dr. Brinkerhoff, of Pa., proposed the application of Colodion to prevent pitting in this disease.

The abortive treatment of Intermittent fever by the free use of Quinine, is discussed by Dr. Bell. So general is the adoption of this course of treatment in our country now, that we deem it unimportant to give the arguments of the author. However, as the report is for the whole country, the space devoted to the use of Quinine is well used, and we hope it may do good where the profession is behind the times on this point. Notice is made of Prof. Brainard's treatment of Intermittents with Strychnine.

Dr. Upshur, of Virginia, speaks favorably of the use of Croton Oil, as a cathartic, in Rheumatism; next to it in point of importance he recommends the use of Quinine.

The tendency to employ leading articles of the *materia medica* indiscriminately is so strong, that we have been fearful that Quinine is destined to almost as universal an employment as Calomel has had. Though we regard it as a much safer remedy to be thus used, we hope the profession, now that it has before it the lesson of the calomel mania, will be careful not to carry the use of quinine, or any other remedy, to the extent of giving it universal applicability to the cure of disease.

Dr. Norwood, of S. C., has proposed the use of *Veratrum Viride*, or American Hellebore, for diminishing the force of the circulation in affections presenting this indication.

Prof. L. A. Dugas, of Ga., has called attention to the effects of large dilutions of certain remedies, such as Iodine, Arsenical preparations, Corrosive Sublimate, Calomel, &c. He thinks many advantages may be gained by dilution, a principle which the author of the report very justly regards as too often overlooked.

After calling attention to the remarks of Prof. Warren, on the use of cold Water as a Therapeutical agent, and some general observations upon sanitary measures, this part of the report is drawn to a close.

That part of the report treating of the progress of Epidemics, is full and quite catholic in its spirit, noticing all the accounts of Epidemics that had come to the knowledge of the Committee, but our space will not allow us to extend this notice further. We have noticed in preference the improvements in treatment, as both more interesting and more useful to our readers.

Part 3.—Editorial.

ARTICLE I.

WESTERN MEDICO-CHIRURGICAL JOURNAL.

This periodical is the organ of the Medical Department of the Iowa University. That institution is a prolongation of the Medical School that attempted to set up in St. Charles, Ill., a number of years ago; went from there to Laporte, Ind.; its organizers left there for *cause*, and set up the School in Rock Island, Ill.; thence removed it to Davenport, Iowa; and last of all moved it to the city of Keokuk.

As most of our readers know the dishonorable course pursued by this heretofore moving, trading, secret-remedy-promulging establishment toward Rush Medical College, we had not deemed it advisable to notice it in the Journal. But since the organ of the School has been publishing misrepresentations and false accusations against Rush Medical College, and has the audacity to say that those connected with that School do not deny them, we hope our readers will pardon us for thus briefly alluding to it.

As to Rush Medical College, its course has uniformly been open; its history is known to the profession at large. Its position upon the subject of fees, the alleged cause of offence, was assumed after it had been publicly advocated by Dr. Stevens, the eminent Ex-President of the American Medical Association, and adopted by the University of Michigan, one of its nearest neighbors. It stands in that position from principle, believing it to be the true policy; and its faculty will rejoice at the time when all the Schools of the country shall come up to it, regarding it as the harbinger of better times for the profession.

ARTICLE II.

PURE DRUGS AND MEDICINES.

We would call attention to the circular of Philip Schieffelin, Haines & Co. accompanying the present number of the Journal.

The subject of pure and unsophisticated medicines is one of as much importance to the practitioner as any to which his attention can be directed. We have recently, as a member of a committee of the American Medical Association, had occasion to examine into the subject in this region. We are sorry our observations were not received in time to be read at the late meeting of that body. Our information goes to prove that there are many articles of inferior quality, some entirely inert, and others pernicious in their properties, used by the physicians of the North-West. In fact, we learned from reliable sources, that when the pure articles were presented at a higher price than was placed upon the indifferent and sophisticated, many physicians would prefer the latter!!

Certainly in any light in which such a course can be viewed it is miserable policy. If the physician desires the specific effect of a remedy, it is necessary that he should have the genuine article to secure it, without which he will be unable to determine whether his failure, when it occurs, is in consequence of the worthlessness of the article or the inpropriety of the prescription. And again, if he wants his articles to be *cheap*, he can buy the pure and adulterate for himself at a greater profit, and enjoy the advantage of knowing of what the adulteration consists.

ARTICLE III.

TO THE MEDICAL PROFESSION OF ILLINOIS.

Having been selected by the Chairman, Prof. T. Reyburn, of St. Louis, as an associate member of the Committee of the American Medical Association on the Epidemic Diseases of Missouri, Illinois, Iowa and Wisconsin, and the consideration of the subject for the State of Illinois having been assigned to me, I would solicit reports from the physicians of the state of any and all epidemics that have prevailed within their respective regions of country from the commencement of the year 1849 up to the close of 1851. Information furnished shall be duly credited in the report.

JOHN EVANS.

No. 108 Randolph St., Chicago.

ARTICLE IV.

CIRCULAR.

To the Medical Profession of the United States.

The undersigned having been appointed, at the last meeting of the American Medical Association, Chairman of the Committee on the "Results of Surgical Operations in Malignant Diseases," respectfully solicits contributions to the subject, founded upon personal observation. To place the subject in as tangible a form as possible, he begs leave to direct attention to the following points :

1. The difference between cancerous and cancrroid diseases, or those affections which are truly malignant, and those which are only partially so. In the former category are comprised scirrhus, encephaloid, and melanosis; in the latter, certain maladies of the skin and mucous tissues, as lupus, cheiloid, eiloid, and cancer of the lip.

2. The precise seat of the disease, as the skin and subcutaneous cellular tissue; the eye, ears, nose, face, lips, tongue, salivary glands, jaws, and gums; the lymphatic ganglions of the neck, axilla, groin, and other regions; the mammary gland, uterus, ovary, vulva and vagina, penis and testis; the anus and rectum; and, finally, the extremities.

3. The age, sex, temperament, residence, and occupation of the patient.

4. The cause of the disease, its progress, and the state of the part and of the system at the time of the operation.

5. Mode of operation; whether by the knife, caustic or ligature.

6. Time of death, or relapse, after operation.

7. Examination of the morbid product; how conducted—whether by the unassisted eye alone, or by means of the microscope, and chemical tests.

The undersigned hopes that the importance of the subject confided to him, as Chairman of the Committee above referred to, will be sufficiently appreciated by his professional brethren to induce them to aid him in carrying out the wishes of the American Medical Association. The subject is one of absorbing interest, and cannot fail, if properly treated, to elicit matter of the greatest benefit. It is very necessary that all communications upon the subject should be sent to the Chairman of the Committee by the 1st of January, 1852.

Medical Journals, and newspapers friendly to the interests of medical science, will confer a favor upon the undersigned by inserting the above notice.

S. D. GROSS, M. D.

University of Louisville, June 29, 1851.

ARTICLE V.

MISCELLANEOUS MEDICAL INTELLIGENCE.

Health of Chicago.—The Cholera has been prevailing to a limited extent in Chicago since early in July, the deaths ranging from one to six a day from that time to the present. So far the season has been much more healthy than for several

years past. The Dysintery, though attracting less public attention than Cholera, is much more prevalent, yet it is generally mild in its character. A few cases of Remitting fever have presentde within the last week or ten days.

New Journal.—We have received the Nashville Medical Journal, and welcome it to our list of exchanges. It is well got up, and filled with interesting matter. We wish it success.

The New Jersey Medical Reporter has been changed from a quarterly to a monthly visitant, and is always welcome.

The Transactions of the College of Physicians are now published quarterly at one dollar per annum. It is one of the most interesting and useful periodicals of the country.

The forthcoming volume of the Transactions of the American Medical Association will contain the prize Essay on Ovulation of Prof. J. C. Dalton, jr., of the Buffalo University, embellished with several fine engravings. Members of the Association can obtain it by remitting two dollars to I. Hays, M. D., Treasurer, Philadelphia.

By the language of a notice of Prof. Armor's appointment to a chair in the Cleveland University, in a Cleveland paper marked and sent to us by some one, in which he is styled late Professor in the Iowa University, we were led to inter that he had resigned his place in the latter School; but we observe that instead of this, he has not only accepted the Chair in the Cleveland College referred to, but has had an additional Chair assigned to him in the Iowa School—being now Professor of Physiology, Pathology and Clinical Medicine, and also of Theory and Practice.

We have the pleasure of presenting our readers with another number of our Journal entirely filled with original matter.

ARTICLE VI

NOTICE TO READERS AND CORRESPONDENTS.

We have received original communications from Drs. Smick and McArthur, and will have for the next number of the Journal an interesting report of cases from the Illinois General Hospital of the Lake.

We have received the Transactions of the Medical Society of the State of New York for 1851; the Transactions of the New York Academy of Medicine for 1851; the Proceedings of the Medical Association of the State of Alabama for 1851; Prof. Jno. C. Warren's Address before the American Medical Association at Cincinnati, (from the author); Report of the Trial of Wm. R. Winton, M. D., (from the defendant); Minutes of the Proceedings of the Medical Society of the State of Georgia for 1851; Proceedings of the Twenty-Second Annual Meeting of the Medical Society of Tennessee, 1851; By-Laws of the Indiana Hospital for the Insane, 1851; an Address by Thos. E. Bond, A. M., M. D., to the Graduates of Washington University of Baltimore, 1851. We had written a notice of this Address, but it was unavoidably crowded out for want of room. An Address by Prof. A. Litton to the Graduates of the St. Louis University, 1851; the Valedictory Address of Prof. Downey to the Graduates of the Indiana Central Medical College, 1851: together with the Annual Announcements of the Medical Department of the University of Pennsylvania, of Jefferson Medical College, Starling Medical College, Medical Department of the University of Michigan, New York Medical College, Medical College of the State of South Carolina, University of New York, Western Reserve College, Kentucky School of Medicine, Medical Department of the St. Louis University, Medical College of Ohio, Hampden Sydney College, Richmond, Va., and of the Indiana Central Medical College. Also our usual list of exchanges.

 OBITUARY.

Died, at Elgin, Ill., Aug. 6th, of Consumption, Dr. Erastus Sanford, in the 31st year of his age.

The highest testimonials of his good standing in the profession and in society, have been furnished.

THE NORTH-WESTERN MEDICAL AND SURGICAL JOURNAL.

VOL. IV.]

NOVEMBER, 1851.

[No. 4.]

Part 1.—Original Communications.

ARTICLE I.

Observations on Cerebro-Arachnitis, or Meningitis, as it occurred in Clark and also Menard Counties, Ill. Read before the Central Medical Society of Illinois by JAMES SMICK, M. D.

No person that has ever had cases of Meningitis, in a malignant form to treat, will lightly esteem any information relative to the *Ætiology*, pathology and treatment of it, from any source however humble.

Having seen many cases of this fatal disease, in the course of 17 years' practice in Darwin, Clark County, and some since I came to Menard, I propose giving to the society the results of my experience relative to it; and if it does nothing more than call forth the observations of abler writers, on the subject, I shall be well paid for my trouble.

The first cases that I saw, were in 1832, and I have seen more or less of it every year since. In 1841, and also in 1845-6, Meningitis raged as an epidemic, in Darwin and vicinity in Clark County, Ill. It was much more fatal in these years, than when only a few sporadical cases occurred, owing to the increased malignancy attending it.

The epidemic did not rage to the same extent in 1841 and 1845 that it did in 1846. In the winter of 1845 and '46 the malignant Erysipilas or "Black Tongue," as it is termed,

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made its appearance.¹ It commenced some time in December, and raged until warm weather set in, in the spring.—About the middle of March, the first cases of Cerebro-Arachnitis made their appearance, and continued to occur until the middle of June following. The period of its greatest prevalence was in April, this year. The disease was less tractable to medicines in this month, than any other. In 1841 we also had more cases in the month of April. In 1845 the first cases occurred the last of September, and the last about the middle of November following; no more then until it commenced in March. I had cases in almost every month of the year, but none from September until May; fewer in June, July and August, than any other months of the year.

The few cases that came under my observation since I came to Menard, occurred between the months of October and May. Two cases in 1848, seven in 1849, and one in 1850. No disease that has fallen to my lot to treat, has been so fatal as this one. Asiatic Cholera cannot boast of a greater mortality. It is not unusual for one half or more of the cases, to terminate fatally. By reference to the *Medico Chirurgical Review*, No. 86 for 1841, we see that the disease prevailed at Versailles, Rockport, Metz and Strasbourg. The history of the epidemic as it appeared at Strasbourg, is given by Dr. Wunchendorff. The mortality is even greater at these places than we have stated above. "One half," says the Dr. "of my patients died; but this mortality is common with this epidemic, with sporadic Meningitis, which usually seems fatal in two out of every three cases. In the Civil Hospital at Strasbourg, 21 patients died out of 40 that were admitted; and in the Military Hospital the mortality was still greater—104 out of 176." A small fraction over a third of the cases in my practice proved fatal. Of the 10 cases that I had since I came to Menard, four proved fatal—two were in "articulo mortis" when I saw them.

Ætiology. It may be presumption in me to attempt to trace out the cause of epidemic Meningitis, as all who have written upon the subject, so far as I know, have given so few theories, or hypothesis to build upon. But I wish to state facts, so far as I have observed them, and draw from them, such deductions as they may justify, in order that the true cause may be discovered.

The fall and winter preceding the epidemic, that we had in the spring of 1841, were unusually wet. The Wabash river was very high, overflowing its banks many weeks together, as well as the small streams that empty into it near Darwin; leaving large heaps of earth and silt washed together, by the water, when it subsided in the spring. The same was the case before the epidemic of 1845. All remember the high water of 1844, which did not subside, very low until 1845. The fall of this year was dry; but in December it commenced raining, and raised the streams to high water mark. When the water subsided in the spring, more than a usual amount of silt was left on the bottoms. So far as any mention is made of the weather, by writers on this subject, say the disease was preceded by a great deal of wet weather.

This was the case with the epidemic that prevailed in Rutherford County, Tennessee, in 1842, as given by John W. Richardson, M. D., in his report to the Medical Society of the State, for that year, (vide *Western Journal of Medicine and Surgery*, Vol. vi. No. iv.) Also the case with the epidemic Cerebro-Arachnitis, that raged in Boone and Galway Counties, Missouri, after the great freshets of 1844 and '45. A large amount of silt and earth was washed up and left on the bottoms after the water subsided. To this cause some of the physicians of those Counties attributed the epidemic.—Do they not stand one to another as cause and effect? If so, what is the agent or agents?

The first question here propounded, may very safely be

answered in the affirmative. The second rests entirely upon conjecture ; owing to the imperfection of our science we have failed to detect any agent, to which we may attribute it.

As to the first question, I think the facts above enumerated prove that Meningitis follows freshets succeeded by warm winters. Whether " these things of themselves are sufficient to produce the epidemic influence of the atmosphere, I am not able to say ; but one following in the train of the other, I think they at least demand a close investigation. I will mention a few facts, that came immediately under my own observation, that will perhaps, throw some light on the subject.

About three fourths of a mile below Darwin on the Indiana side of the river, there was a farm with some 15 or 20 acres of ground cleared, that had been cultivated some two or three years ; a small cabin stood upon it. In 1844 the family that lived on this place had to leave in consequence of high water that occurred in the month of June (it always overflowed in a high stage of water,). The water kept up for some time, so that no one attempted to occupy it till the spring of 1846, in the last of March and first of April. The man who expected to occupy it engaged some friends to repair the cabin and assist in putting up the fence, which was thrown down by the high water. The company consisted in all of about fifteen men, women and boys. They made what is usually termed here "a frolic" to repair the farm. The women went along to cook for the others. Whisky was freely used on the occasion. It took them two days to accomplish the work. Ten out of the fifteen took Cerebro-Arachnitis ; seven of whom died. The period of incubation was from three to ten days. The first case occurred the third day after they quit work, and the last the tenth. Two of the first cases were fatal ; the first one only lived about six or eight hours from the first feelings of indisposition. The last cases were not so severe as the first ; most of whom recovered.

I think drinking on the occasion was not the cause of the disease, for the following reasons :

1. The intemperance on this occasion was no greater than a portion of them were in the habit of indulging in every day.
2. Those who did not use spirits were also affected.
3. The "frolics" which were made on the prairie, were not followed by the same results.

That the cause of the disease existed on the premises, I think there can be no doubt, from the fact that so many were taken sick out of those that engaged in the work ; and that they lived some five or six miles apart, belonged to four families, and were taken sick so nearly together ; while the members of the families who did not work on this place escaped the disease.

The amount of silt left on the field by the water and drifts of wood out of which the rails were taken, was well calculated to send forth what is usually termed "*malaria*," if it had been at a season of the year when the temperature was sufficiently high to produce it. May not malaria produced by a high temperature be the cause of Bilious fever, and malaria produced by a low temperature the cause of Cerebro-Arachnitis ? The foregoing facts go to prove this.

In what this malaria consists, I am not able to say. Whether it consists of heat and moisture, or some gaseous emanations from the earth, such as carbonic acid, carbonic oxide, carburetted hydrogen, sulphuretted hydrogen, carbonate of ammonia, or cryptogamia, such as is termed the vegito-animalcular hypothesis, I cannot say. But be it what it may, it seems to be generated in the fall season of the year, that keeps the disease up through the winter, and when a sufficient expansion of caloric takes place in the spring to generate it, the disease increases. Or, as we have many cases on record of malaria laying in the system for a considerable length of time in a latent state, before it produced disease, might the ma-

laria generated in the summer lay in the system in a latent form until cold weather brought on some exciting cause of disease that would so modify it that the attack would be Cerebro-Arachnitis, in place of Bilious Remittent Fever? I rather think not.

Pathology.—Relying on its effects to guide us in an estimate of its character, we may say that efficient cause of Cerebro-Arachnitis is a sedative and irritating quality, somewhat like the narcotic-irritating gases; or certain solid and fluid bodies, which, in large doses, destroy life suddenly, by reducing power, and in smaller portions weaken while they pervert the functions, producing reduction of vital energy, obtuseness of sensibility, suspended or perverted secretion and diminished calorification, and from an equal necessity they will be felt in all parts of the body, because the agent which produces them travels with the circulation.

If we suppose such matter to be simultaneously introduced into all the serous sacks of the body, we should expect immediate reduction of the vital powers and early death; though we can conceive of the quantity being so small that the system would react, and fever and inflammation ensue. And it requires no great stretch of the imagination to suppose that the inflammation was determined to the Arachnoid membrane of the brain and spinal marrow, in this case, by the same law that governs the virus in other cases, producing diseases and inflammations of their own peculiar character. Such as the virus of Small Pox, a peculiar eruption and inflammation of the surface; the virus of Scarlatina determines its action upon the skin and throat; and Erysipelas upon the skin.

May not the cause, by the same law, determine the inflammation to the Arachnoid membrane, in Cerebro-Arachnitis, in those cases where they survive the first shock?

In those cases that die suddenly—in which no reaction follows the chill—the powers are so reduced that they die as individ-

uals die under the influence of prussic acid, or some other poison of a like kind. Their susceptibilities to the various sustainers of life are annihilated, and they sink. Although the surface is cold they do not shiver nor complain of cold, because the functions of their nervous systems are too deeply smitten to admit of their action on the muscles, or of their taking cognizance of the loss of caloric. And the more complete this symptom, the less hope we can have of reaction taking place. But if death does not follow the first impress of the poison, according to a physiological law that exists, that, after *depression* there will be *elevation*, the vital forces arise from their state of depression, and excitement is the result.

In this stage of the disease the inflammation seats on the Arachnoid membrane, and also, in some cases, the substance of the brain itself constituting what is called by Rollet Cerebro-Spinal Meningitis, and Encephaloid Meningitis, according as the envelops alone of the cerebral centres, or the cerebral substance itself participates in the inflammation.

Post mortem examinations exhibit active congestion, supuration, and even softening of the brain and spinal marrow, according to the degree and intensity of the disease.

Dr. F. M. PAYNE, and myself, made a post mortem examination of a boy that died from this disease, in December, 1842. He died the 6th day from the attack. The last 24 hours before he died he had some four or five hard convulsions. The examination was made some twelve hours after death. On opening the cranium the external blood vessels were highly congested; the Arachnoid membrane was inflamed in every part of it, and covered with a thick layer of pus. This extended as far down the spine as we were able to see. The corticle substance of the brain seemed to be slightly softened, the medullary portion was normal, there was rather more water in the ventricles than in the healthy state. We examined no other parts of the system, as the symptoms did not indicate

any particular derangement of any other part; and the amount of disease that we discovered in the cranium we thought was sufficient to account for the death of the patient.

I have seen in a good many cases an Erysipelatous eruption, follow the inflammation of the Arachnoid membrane. This eruption commences about the time the inflammation leaves the brain. Its general location seems to be the throat under the chin, and the face. Case 3d is an example of this kind.

Can the inflammation of the Arachnoid membrane be exclusively of the erysipelatous character? If so, this affords another reason why it seats upon the surface of the brain and Arachnoid membrane. Death is evidently produced in those cases that die in a few hours from the attack, by congestion of the brain and enervation, or rather paralysis of the nervous centres; and those that reaction takes place in, die from the result of inflammation of the Arachnoid membrane and brain.

Symptoms.—This disease has its exacerbations and remissions, very much like Bilious Remittent Fever, or most of the diseases of a miasmatic origin.

The type is mostly quotidian, and in some cases it is tertian. Each exacerbation, in some cases, is preceded by a chill, or chilliness; and the more distinct the chill, the exacerbation and remission, the more manageable the disease.

The fever, in some cases, is of a Synochus, and in others, of the Typhoid character.

The disease is usually ushered in with a chill, which lasts for three or four hours, and in some cases the coldness does not amount to a chill, only a chilliness. This is soon followed by a reaction that runs high in many cases; in others the reaction is feeble and broken. These are the bad cases, if attended with other symptoms denoting malignancy. About the first appearance of reaction, the patient complains of a severe pain in his head and back of the neck; in some cases the

pain commences suddenly as though he was struck with a hammer, and continues of a throbbing kind, which is very annoying to the patient. Some cases are attended with a severe pain in the back and loins. Sickness and vomiting frequently attend. When the reaction runs high, and in those cases attended with malignancy, they become restless, talkative, boisterous, calling those to whom they were most attached in health, pulling and scratching the bed clothes, sometimes biting their finger nails, and occasionally screaming as though they were frightened. Others lay perfectly stupid, muttering incoherently, and when aroused would answer questions rationally if addressed in a sharp, quick tone, and then would immediately commence writhing and twisting, and talking incoherently again. Those who die before any reaction is established, roll from one side to the other, and toss about in every possible manner, apparently insensible to all surrounding objects; and if aroused at all, are not sensible of their danger or even that anything is the matter with them. And those who die by congestion of the brain, the breathing becomes stertorous before death. In most cases a free perspiration sets in, soon after reaction is established, which continues through the exacerbation. Deafness attends in most cases. Obscure vision, double vision, and even blindness, attends in many cases. The head is drawn back between the shoulders, and the whole spinal muscles contracted so as to form the body in a curve backward, in nearly all the bad cases, which incapacitates the patient from laying comfortably upon the back, such as exists in that form of tetanus called *Opisthotonos*. The pulse in the cases attended with the sinking of the vital energies of the system, is feeble and not very quick; during the exacerbation it is quick and frequent, beating mostly over 100 and sometimes 150 beats in a minute; and in some cases it is hard. The tongue at the commencement is not much affected, but after a few paroxysms it becomes white,

sometimes yellow, and in the cases where the fever assumes a Typhoid character, it is covered with a thick brown or black coat, which becomes very dry; the tongue, in this case, cracks. The bowels, in the most of cases, are torpid; all the secretions seem to be arrested or retained. The urine is not discharged for some hours, and is mostly of a high color.

Sometimes the arms, and at others one or both legs, are paralyzed. An eruption frequently makes its appearance on the surface, which is confined to the forehead, breast and arms; it is in the form of red specs. In some cases the throat is sore, and in a few I have seen paralysis of the muscles engaged in deglutition exist, so that it was almost impossible to swallow. It is not unfrequent—if the cases are protracted—for severe spasms or convulsions to attend; this is a very unfavorable symptom.

Delirium is a prominent symptom of this disease, but in some cases the mind is not affected, the patient retains his senses through its whole course.

Prognosis.—Cerebro-Arachnitis has no certain number of days in which to run its course; and is not marked by any critical days. The first cases that occur in a place, when it assumes an epidemical form, are much more malignant than after it has existed in this character for a while. Sporadic cases yield more readily to medicines than when it rages as an epidemic. This is the case so far as I have observed. The more protracted the chill, the more broken the reaction, and the greater the nervous prostration, the greater the danger; especially if the sensorium is deeply affected at the same time,—that is, if the surface is cold and the patient is not sensible of this absence of caloric, delirium, restlessness, &c., while the more open the excitement, the longer the remission and the more sensible the patient is of all his aches and pains, the more favorable the result.

A great many cases die in the first chill; and if they sur-

vive this, and the reaction is broken, they sometimes die in the second exacerbation. Convulsions, if they occur in the disease after it has existed some days, form an unfavorable symptom, for most of the cases in which I observed it proved fatal. In most of those cases where the nervous system was deeply affected, and convalescence from the first attack was established, the recovery was very slow. In some, swelling of the joints, and phlegmonous inflammation of the muscular tissue—mostly upon the arms and legs—followed as a sequel.

Diagnosis.—Cerebro-Arachnitis may be distinguished from Cynanche Tonsillaris, or Cynanche Maligna, by the absence of inflammation of the tonsils in many cases, and when it does occur the swelling is not so great; and when the eruption does occur it is in more circumscribed spots, not so large as in either form of Cynanche.

It may be distinguished from Congestive Chill by the disease running a much more rapid course. The patient generally survives the first and second chill in Congestive Chill, but in Cerebro-Arachnitis when he dies in the chill it is usually the first; and the sensorium is more affected in this than in Congestive Chill.

It may be distinguished from Typhoid Fever from the rapid course the disease runs, and the prominence of the leading symptoms. And from Bilious Remittent Fever by the absence of the bilious diathesis, and the greater amount of pain in the head, and opisthotonos, when that exists. And also from Pneumonia, from the absence of the pneumonic symptoms, as pain in the region of the lungs, cough, &c.

Treatment.—The first indication to be fulfilled is to bring about reaction, and prevent the rapid sinking of the vital energies of the system.

The second indication is to lessen the inflammation of the brain, and moderate the excitement.

The third indication is to intercept the paroxysms, so as to arrest the disease in its course.

The remedies that have succeeded best in my hands to accomplish the first indication, are, first, sinipisms, as strong as they can be made, to the entire spinal column and abdomen, and also envelope the lower extremities with the same. These should remain on as long as the patient can bear them, if he is sensible of their effects,—if not, until they have made a strong impression. When these are removed the surface should be rubbed with a strong effusion of cayenne pepper and vinegar. The rubbing should be performed under the bed clothes, so that the air does not come in contact with the moist surface; and it should be performed diligently and perseveringly, until reaction takes place, or all hopes of its taking place are given up. Artificial heat should be applied to assist these in bringing about reaction. This may be done by applying warm stones, warm bricks, or ears of corn boiled in water, around the patient, especially to the lower extremities, until reaction takes place.

Internally I give a powder composed of the bi-chloride of mercury and pulv. camphor, of each 10 grains, and pulv. opium $\frac{1}{4}$ of a grain, every two or three hours, until reaction takes place; and after it takes place I reduce the quantity of camphor to two grains, and repeat until a decided impression is made on the bowels, or seven or eight powders are given. I also use sulph. ether and spirits ammonia, to bring about reaction, and a remedy that I think well of, but have not had much experience with in this disease, is liquid camphor, or three parts of camphor dissolved in one of chloroform; ten or twelve drops of this should be given at short intervals until reaction takes place.

The remedies that I use to fulfil the second indication are, externally, cold applications to the head, cold water or ice applied to the head—if the cold water is used, it should be done by pouring on, or applied with a sponge often enough to keep the head cool. A large blistering plaster long enough to

cover the cervical vertebræ, should be applied to the back of the neck. The spinal column below the blister should be rubbed frequently with a liniment made of equal parts of hartshorn, camphor, and spirits turpentine. Rollet is in the habit of applying the actual cautery to the spinal column, with marked advantage. I have never used it, but will in the first case that requires it.

When the fever runs high and the heat of the surface is great, and also dry, it should be sponged off frequently with warm vinegar and water, or weak soap suds; this should be done often enough to keep the heat down.

Internally, I continue the calomel, camphor and opium powders used to bring on reaction, or if I have not been called until this stage of the disease, I commence them immediately and give them until free catharsis is produced, or seven or eight powders given; if they do not operate, follow them with a dose of castor oil or seidlitz powders. I give some four or five powders of the above kind, followed with a cathartic if necessary, every exacerbation, or once every twenty-four hours if the exacerbations are not well marked, until all marks of inflammation subside, or the mouth is affected by the calomel. When the pulse is hard and no symptoms exist that indicate a sinking of the vital energies of the system, I bleed from the arm until a decided impression is made upon the circulation, and repeat if necessary. There is no remedy that requires more caution, or discretion in using it, than bleeding in Cerebro-Arachnitis; for there is a strong tendency throughout the course of the disease to the sinking of the vital energies of the system, and when venesection increases this tendency, we should not use it; but where the excitement is open and the inflammation runs high, we may venture upon it without any hesitancy.

Rollet, and other French physicians, rely with much confidence on depletion and antiphlogistics in the treatment of this

disease. But the same success has not attended my use of the same remedies. I therefore discriminate in the cases in which I now use them, especially depletion. In all cases marked by a remission, during the remission I use quinine, morphine, and precip. carb. ferri., to intercept the paroxysms, which is the third indication of cure.

This is the great antiperiodic remedy of the age, and all diseases of miasmatic origin marked by exacerbations and remissions, demand its use. In the first remission that presents itself I use a powder composed of from six to eight grains of quinine, $\frac{1}{4}$ grain morphine, four grains precip. carb. ferri., one every two hours during the remission, or until the system is brought under the influence of the quinine. I use this compound in this way during each remission, until the disease is broken up. If there is much stupor or somnolency I omit the morphine.

The only class of cases that I have not seen the tonics benefit is that class attended with a dry or parched tongue. Quinine has been as beneficial in this disease, in my hands—in the cases where it can be given—as it is in Bilious Remittent fever.

It may be said that the cases in which it is beneficial would recover without it. This, according to my experience, is not correct; for many recover under its influence presenting the same group of symptoms that, before I used it at all, proved fatal. And, further, the same success did not attend the practice of the physicians that did not use it, in the same epidemic, as it did those who did.

The remedies here detailed in the three grand indications of cure, are those that I rely upon, and that have proved most successful in my hands, in controlling this formidable disease, Cerebro-Arachnitis. But in a disease presenting such a variety of symptoms, many symptoms may arise during its course that the remedies above given will not reach; there-

fore each symptom should be met by its appropriate remedy. I will give in detail three cases from the many that I have treated, as a further illustration of the disease :

Case 1st. I was called to see Mrs. M —, April 9th, 1846. She was taken about three hours before with what they supposed to be an ague chill. She was 18 years of age, of a sanguino-bilious temperament ; the mother of one child ; had always enjoyed good health. I found her tossing from one side of the bed to the other, pulling the bed clothes, talking incoherently, repeating mostly monosyllables. These restless spells would last for 20 or 25 minutes ; they would be succeeded by stupor or somnolency that would last about as long. The extremities were cold ; the pulse was small but not very frequent, rather shattered ; respirations rather more frequent than in health, the inspirations were long and heavy ; appears insensible to all surrounding objects, but when spoken to in a loud sharp tone, she will seem to pay attention at the time, but would not answer questions. Said when she was first taken the pain was in her head. I ordered mustard poultices to the back and bowels, and the extremities rubbed with Cayenne pepper and vinegar, cold applications to the head ; gave a powder composed of 10 grs. Sub. Murias Hyd. $\frac{1}{2}$ gr. Pulv. Opii, 10 grs. Pulv. Camphor and repeat every 2 hours ; also, a half teaspoonful of of Sulph. Ether to be given every half hour. I visited her in company with Dr. Seth N. Montague, (who was practicing in partnership with me at the time,) in an hour and a half from the time I left her. No change for the better. The rubbing and artificial heat that had been applied increased the heat of the surface, but it was not of that character that indicated reaction. We continued the treatment. Dr. Montague remained with her and did all that could be done, but in an hour and a half more she was a corpse.

Case 2d. We were sent for to visit Mr. A. M —, April

11th, 1846. Dr. Montague visited him, found him in a chill. The sinapisms, rubbing and Ether detailed in the above case, soon brought on a re-action. The pain in the head was very great, it would make him scream out aloud. Said "it was like some one was beating the top of his head off;" was restless; fever ran high. Soon after re-action came on, he commenced sweating, which continued through the exacerbation. He directed Sub. Murias Hyd. 10 grs., Pulv. Camphor, 2 grs., Pulv. Opii, $\frac{1}{2}$ gr. to be given every 3 hours until the bowels were moved freely or 7 powders were given, and in case of no operation to be followed with a dose of Castor Oil. He also applied a blistering plaster to the back of the neck, and had cold applications applied to the head as often as the heat required them.

April 12th.—We visited the case together this morning, found him without much excitement, pain in the head severe; delirious; slight degree of opisthotonos, the contractions of the muscles of the back were not very rigid; pulse over 100; tongue covered with a white coat; eyes red and watery. The powders had operated without the oil; the blister had drawn well. We directed the powders to be commenced at 9 o'clock, and one to be given every 3 hours until he takes five, to be followed by Castor Oil if necessary. Liniment to be applied to the back, and when the fever rises, cold applications to the head; and the surface to be bathed frequently with warm vinegar and water.

Dr. Montague visited him at 4 o'clock P. M. He found him laboring under a high degree of excitement, his pulse was stronger than in the morning and somewhat hard; other symptoms as in the morning. He took 16 ounces of blood from the arm. He directed a powder to be given, when the excitement went down, of Quinine 8 grs., Precip. Carb. Ferri., 4 grs., Pulv. Dover 2 grs., every 3 hours during the remission.

13th—I visited Mr. M—— this morning at 8 o'clock, found him more rational; complains very much of the pain in his head back and hip of the right side; left eye some better, the right one worse, the cornea is completely opaque, and the pain in it is deep seated. His medicine had operated freely on the bowels—had to take the Castor Oil; had taken three of the Quinine powders. The muscles of the back are not contracted so much; when he is dozing he is talking incoherently, but stops when he is roused up. Continue the same treatment, that is, the Quinine powders every 2 hours until the fever increases, and Calomel, Camphor and Opium in the evening, 5 powders 3 hours apart, Oil after, if necessary; the Liniment to the back. And in addition, a blister over the affected hip, and a solution of Nitrate of Silver to the eye.

April 14th.—Visited him again, found an improvement in all the symptoms excepting the right eye and hip. The blister had drawn well; but there seemed to be a total paralysis of the limb. Continue the same treatment.

15th.—He appears still better, excitement last evening was less than before; rested some through the night; talked less; when he is raised up he has no disposition or ability to hold up his head; very little pain in the head. The eye and hip are no better. Continue the same treatment.

16th.—Still continues to improve, has some appetite, took some broth; thinks himself that he is better; his mouth is slightly affected by the Mercury; discontinue it; continue the tonic powders every 4 hours; directed the paralysed limb to be rubbed with Liniment, and increase of the irritation over the lumbar vertebra.

From this time there was a gradual improvement in Mr. M's. case, with the exception of the eye and hip. The eye never recovered. It appeared that the optic nerve was destroyed by the inflammation, as well as the opacity of the cornea that existed.

The leg improved so that he could get about with a crutch. He could move it, but had not strength enough in it to bear his whole weight upon it.

The nervous system received a shock that it never recovered from. His system was left a complete wreck. He died five months after of an attack of Billious Remittent fever contracted by exposure to night air.

The two cases detailed above are among those that contracted the disease repairing the farm and consequently occurred when the disease raged as an epidemic. The one given below was a sporadic case.

Case 3d. April 23d, 1849. I was called to see Mrs. J. who was taken sick the day before, with what they suppose to be the chill and fever. She was taken with a chill followed by a high fever and severe pain in the head, and this morning had another chill about the same time. The chill had passed off when I saw her. The pain in the head was very severe; she was tossing from one side of the bed to the other screaming aloud with the pain in the head, said "that her head would burst!" The pain extended down the back; the muscles of the back were contracted so as to form the trunk in a curve. The tonsils were slightly swelled; the tongue was covered with a white fur and moist; the pulse 120, and somewhat hard. All the secretions seemed to be suspended. As there were no symptoms present indicating the sinking of the vital energies of the system, I took 18 ounces of blood from the arm; directed a powder of Calomel 12 grs., Pulv. Opium $\frac{1}{2}$ gr., Pulv. Camphor 2 grs., every 3 hours until 5 doses were taken, to be followed with Castor Oil if they do not operate; cold applications to the head; a blister to the back of the neck; Liniment to the throat and spinal column, below where the blister was applied; the surface to be sponged off frequently, with warm vinegar and water.

24th.—Visited Mrs. J. at 8 o'clock this morning, found her

not better. There was a slight chillness about the same time this morning that she had had the chills before. The fever did not remit any; more stupor and delirium than yesterday. The medicine had operated freely on the bowels---had to take the Oil; blister drew well. Continue the powders, cold applications to the head and sponging the surface with warm vinegar and water.

4 o'clock P. M.---Very much the same; fever high, and some hardness of the pulse. I took 12 ounces of blood from the arm, and ordered a powder of Quinine 8 grs., Precip. Carb. Ferri 3 grs., Morphine $\frac{1}{2}$ gr. to be commenced 7 hours before the chill, if there was the slightest remission in the fever and given every three hours, and continued until the exacerbation next day.

25th, 8 o'clock in the morning.---The symptoms very much as yesterday; no chillness this morning; a slight remission in the fever; had taken three of the Quinine powders, and I directed the fourth. Ordered the Calomel, Camphor and Opium in previous quantities to be commenced at 10 o'clock, and 4 powders to be given.

4 o'clock P. M. Found her with less fever than on yesterday; less delirium and opisthotonos. Directed the Quinine powders to be commenced at 12 o'clock to-night, and given every three hours until the exacerbation to-morrow.

26th. She is decidedly better this morning; less fever; no delirium; less pain in the head; and the opisthotonos entirely relieved. The Calomel operated without the Oil---large quantities of dark, pitchy bile passed off from the bowels, of the consistence of tar. The throat is better. Continue the same treatment.

27th. She continues to improve with the exception of an erysipelatous inflammation of the throat under the chin, which commenced about the time the pain left the head. It is very painful, and appears to be spreading very rapidly; has no ap-

petite—operations from the bowels are still dark and pitchy. Directed but two of the Calomel powders to-day. And the Quinine in 4 grains was combined with the Iron in 3 grain portions every 4 hours. And a strong solution of the Nitrate of Silver to the inflamed surface every 6 hours until it stops the inflammation.

28th. She still continues to improve; inflammation has spread in every direction since yesterday, but does not pain and burn so much as before the solution was applied; very black from the effects of the Nitrate of Silver. Some appetite to eat. Discontinued the Calomel powders. Continue Quinine powders, also the Nitrate of Silver solution to the inflamed surface.

29th. The inflammation has spread none since last visit; improving rapidly in every respect—appetite good. Discontinue all medicines excepting some to regulate the bowels.

31st. Still improving. Gave the case up as cured.

I could add other cases but this paper has swollen beyond the limits intended.

Indian Point, Menard Co. Ill., May 26th, 1851.

ARTICLE II.

Singular Influence of the Aurora Borealis. By R. S. MILLER, Esq., Telegrapher of Chicago.

The origin of that singular and beautiful Phenomenon, the “Aurora Borealis,” (more familiarly termed the “Northern Lights”) seems yet a mystery not only to the millions, but also to those who have given it a patient and careful investigation.

The different theories which have been advanced from time

to time are now almost entirely abandoned, and the apparent want of sufficient data upon which to found anything plausible, has in a great measure checked the progress of inquiry. Some years since it was accidentally discovered that the polarity of the Magnetic needle suffered a material change during the presence of the "Lights." This gave a new impetus to investigation, but further than the simple fact itself, nothing new has been developed.

That it is an Electrical Phenomenon, is the only theory that prevails at the present day. It has met the support of Herschel and other distinguished Astronomers whose opinions are entitled to no little consideration.

During the very striking and brilliant exhibition of this Phenomenon on the night of the 30th ult., a new feature occurred under the immediate observation of the writer, which may be of interest to the scientific and furnish additional evidence in favor of the theory above mentioned.

On the night alluded to, the different Lines of Telegraph were affected in a singular manner, and to such an extent as to compel them to suspend operations for several hours. The derangement (as indicated by the Electro Magnets) at first appeared similar to that which would be expected to result from the crossing or contact of the wires of different Lines in the immediate vicinity of powerful batteries. An examination served to show that the difficulty could not proceed from such a cause. At one moment it was impossible (by the use of the usual tests) to detect the presence of the slightest current of magnetism on the wires. It would then gradually manifest itself and steadily increase for perhaps two minutes, at which time its intensity would be extraordinary; the Magnets exerting an attractive force equal to five or six pounds; (it is usually about one ounce.) It would then gradually diminish and finally disappear.

These alternate effects were regular, and the Magnets con-

nected with the different Lines extending in different directions acted in perfect concert ; thereby showing that the derangement was not confined to any particular locality ; a fact more fully proven when it was ascertained that the same effects were being observed in St. Louis, Cincinnati, Milwaukee and other stations eastward.

By some, these effects might have been attributed to electricity ; but it would have been a forced conclusion. A perfect equilibrium appeared to prevail everywhere, and none of the usual indications of the presence of that agency were observed.

It would be tedious to enumerate all the experiments made on the occasion. Suffice it for the present to say, that the result has convinced the writer that the derangement was occasioned by "*Magnetic Electricity*," but where or how it was developed, or whether it be a cause or an effect of the Phenomenon in question is left for others to determine.

ARTICLE III.

Occlusion of the Os Uteri. By E. G. MYGATT, M. D.

On the 31st of August last I was called to see Mrs. — aged 40, of the sanguine temperament, and a good constitution, in labor with her first child. She had lived with her first husband twelve years and with the present one eight, and this as she informed me was her first pregnancy. The pains were short with long intervals. An examination showed the Uterus to be high up and the Os Uteri not reached.

In the course of twenty-four hours the pains had become strong and frequent, recurring every three or four minutes ; patient vomiting occasionally ; free from headache or frebile

excitement; pulse quiet; skin of the natural temperature; said she felt the motions of the child. Examinations now showed a round, soft, smooth, imperforate tumor or sac. It was soft and fluctuating in the absence of pain, very easily carried before the finger as far as it could be introduced, but dense though elastic during pain and brought within half a finger's length of the vulva.

On the morning on the next day, Sept. 2d, my friend Dr. H——, who has been above thirty years in practice was requested to see my patient. He however, found himself as much in the fog as I had been, as no trace or resemblance of an Os Uteri could be found.

As there was no rigidity of the presenting part and only a slight acceleration of the pulse, we did not bleed our patient but agreed to empty the bowels, keep her quiet, and see what time would develope. Thus passed another twenty-four hours, when we called in consultation Dr. S——, an experienced practitioner who made an examination without knowing our opinion. He informed us that he was unable to find an Os Uteri.

As the strength of the patient remained good, and the foetus not impacted, it was agreed to quiet the pains with Morphine and mitigate her sufferings with Chloroform and wait further time.

The pains were now irregular, occurring with force and then ceasing altogether for hours. I had previously instituted a thorough examination with the index and middle fingers introduced, changing hands that I might ascertain with certainty that the vagina was attached to the presenting part all around. Perhaps it may not be quite orthodox to use or recommend the introduction of the middle finger along with the index, but where the Os Uteri is high up or far back we may gain at least half an inch in this way without any inconvenience to the patient. It enabled me in this case to ascertain that no part of the child engaged fairly in the superior strait.

I had noticed in my examinations a slight sulcus or groove about half an inch long on the lower portion of the presenting part. It felt something like a depressed cicatrix, apparently solid and impervious, whilst the surface immediately around it was as smooth and soft as any other portion.

On the morning of the fifth day the use of the Vaginal Speculum was proposed, that we might bring it to bear upon the little furrow, and ascertain its nature; this was objected to on the part of the patient.

During the afternoon of the same day the pains were strong and propulsive, and while we were consulting as to the necessity and propriety of an operation, we were notified that something was passing. It appeared to be a fluid without much fetor, resembling bloody pus. Some 6 or 8 ounces passed during half an hour. I now sat down to my patient and pressed rather firmly on the sulcus during a pain with the point of my finger, when to my surprise and delight the adhesion gave way and permitted my finger to pass the hitherto occluded Os Uteri; the pains were now effective; dilatation rapid; the breech presented and a still born child of the average size was delivered about two hours after the opening of the Os Uteri.

Nothing unfavorable has occurred since her delivery, but she has had a good "getting up," better than the average of cases.

All the evidence that could be gathered respecting inflammation of the Os and Cervix Uteri is that she suffered rather more than is usual from Dysuria during the early part of her pregnancy and the husband informed me that sexual intercourse had been quite painful to her.

If we had made an early and free incision through the presenting part of the Uterus we should have been justified by good authority and there is some probability that we should have saved the life of the child. It is however, quite uncer-

tain whether it would have been as well for the mother unless the incision had traversed the exact line of the closure.

As this is a rare case, so rare indeed that Dewees, Burns, Denman, and others of great experience and observation, had never witnessed it, I judged it worthy of record in some Medical Journal.

Richmond, McHenry Co., Sept. 22d, 1851.

ARTICLE IV.

Collodion in Small Pox and other Cutaneous Diseases. By E. McARTHUR, M. D., Chicago.

On the 20th of May last I was called to visit Mr. —. I found him laboring under the usual symptoms peculiar to a severe attack of Bilious Fever. He was some 30 or more years of age and possessed a strong and vigorous constitution. I inquired if he had been exposed to any person sick of Small Pox. He replied he had not. His symptoms being those peculiar to Fever of high arterial excitement and at the same time his tongue being covered with a thick coat of brown fur, and there being much nausea and some vomiting I ordered Calomel and Ipecac \AA grs. xvi M., to be given in powder. After a full half hour he commenced vomiting, at which time he was directed to take a little warm water occasionally to facilitate and render vomiting as easy as might be. He threw up a large quantity of yellow and then copper colored bile. I directed him to take Castor Oil \AA i. in four hours. His physic operated well and he took Dover powders and drank Cr. Tartar in solution, to promote perspiration and lessen fever. Next morning his pulse were very strong and quick, skin hot and dry, and no intermission of febrile symptoms. At even-

ing his fever continued high and pulse strong, full and quick. There was a slight discoloration in each groin of the size of the palm of the hand. On the morning of the 22d I observed it was a case of Small Pox, and that the probability was, that it would be one of a serious character. I hastily directed the application of Collodion to the whole face and neck. Four bottles of Collodion were used the next few days, it being applied every 4 hours. The patient remarked almost every time it was applied, "it feels so cool and good."

The disease progressed and proved to be, one of higher arterial excitement and severer in character than any I had ever seen, where the patient recovered, and I had treated several patients with the disease, each year for several years previously.

I have called attention to this case, not supposing that there was anything peculiar or differing essentially from others, sufficient to interest the Profession in the case itself. My object being to add the result of my experience, to that of others, and thus direct the attention to the use of Collodion in diseases of this kind. My patient was pleased in its use and I believe he was pitted far less than he would otherwise have been.

I have used the same remedy for different cutaneous disease, in most of which or all, it appeared to have a salutary effect by keeping the atmosphere from the part effected and at the same time, producing a cooling and agreeable sensation to the heated surface.

It has had a good effect in my practice in bad cases of cracked and otherwise sore nipples, and if used early, for inflamed breasts of nursing women.

ARTICLE V

Extract of Beefs' Blood in the treatment of Anæmia. By Dr. VON MAUTHNER, of Vienna. Translated from the French by H. A. JOHNSON, A. B., Interne to Illinois General Hospital.

Dr. Von Mauthner, Director of the Hospital, St. Amne, of Vienna, has employed for some time the extract of Beef's Blood in the protracted Anæmias of children. According to this distinguished practitioner a large number of diseases are caused by an Anæmic state, rather than is generally believed, by irritation, and ought, therefore to be treated by other than antiphlogistic means. Unfortunately, science has furnished, as yet but few remedies, capable of combatting successfully Asthenic diseases, having their point of departure in the constitution of the blood.

M. Von M. has employed with success the Ammonio Chloride of Iron in the treatment of children, presenting periodical symptoms of congestion, without any appreciable organic cause, and in debility attending intermittants, but he has become convinced that there are Anæmic conditions in which the patients do not bear the use of any of the preparations of Iron, and it is in such states that the Extract renders the most efficient service.

The extract is prepared in the following manner: Blood, fresh from the animal is thrown in a filter, and the residue evaporated to complete dryness. It is administered in the form of powder, or dissolved in water, in quantities of from grs. 10 to 3i. per day. Under the continued use of this means the patients improve very much in appearance and gain rapidly in strength. This result ought to astonish no one when it is considered that the extract supplies just those substances which are wanting in the blood of these little sufferers, viz: the hæmatine and the fibrine.

According to Dr. Von Mauthner, this preparation is especially adapted to the following Anæmic morbid conditions :—

- 1st. Anæmia succeeding chronic diarrhœa of children of a certain age. It is of but very little use in very young subject and in such as have just been taken from the breast.
- 2d. Anæmia after Typhus. The author who is perfectly convinced of the advantages which it offers in this case, assures us that it may be administered without any danger of fatiguing the digestive organs.
- 3d. Anæmia which follows severe pneumonia, when the lungs are not as yet restored to their normal state, and the patient is troubled with cough and fever; but it is to be remarked that the remedy is not equally beneficial in tuberculosis.
- 4th. Anæmia succeeding wasting supperation, and scrofulous ulcers.
- 5th. Anæmia after serous accumulations produced by scarlatina. In this condition of the system it seems to surpass all other remedies in use, since, contrary to the effect which has been observed of other tonics, it produces no irritation of the kidneys, a result often leading to hæmaturia and albumenuria and constituting a new disease.

This remedy, so simple in its use, and costing only the labor of preparing it, merits, as it seems to us, the attention of practitioners, especially for the poorer classes, among whom Anæmic effectations are unfortunately so common.

Anales, Med. de la Flandre Ocil.

ARTICLE VI.

A Case of Rubeola, complicated with premature Labor, successfully treated by Inunction. By O. POPE HATHEWAY, M. D., of La Salle, Illinois.

September 3d, 1851. Case of Mrs. S——t, aged 26. I was called upon to visit this lady about eleven o'clock A. M. I found her laboring under a violent attack of Measles. Four days had elapsed since the first premonitory symptoms made their appearance. This day the peculiar eruption appeared on her face, neck, breast and arms. Her eyes were injected, suffused and intolerent of light. Face considerably swollen; thirst intolerable; pulse 120 per minute and feeble. The feebleness of the pulse and the great thirst were aggravated by the existence of a severe diarrhœa which had been running on her for the last five hours. Distressing nausea was constant and she had vomited every fifteen or twenty minutes for two hours. The distressing cough which generally accompanied this form of Rubeola was so severe that it threw her in to convulsions every three or four minutes. Besides the above symptoms for the last two hours she had experienced severe labor pains. The paroxysms were intermitting, when I arrived, the time intervening being about ten minutes. It was her first pregnancy and by inquiry I ascertained that she could not be beyond the eighth month, and she thought not over seven and a half months. I immediately administered a full dose of Pulv. Opium, and waited to observe its effect. The pains only returned once. I now ordered the nurse so soon as the patient should become sufficiently rested to procure a piece of bacon armed with the rind, and with this to rub the patient thoroughly over the entire surface. I remained with her about one hour and finding the labor pains were

quited, I returned to my office, leaving direction however, that if they should return, another full dose of Opium should be administered. The bacon was applied about one o'clock P. M. Between three and four the labor commenced again. Opium gr. iij. were immediately given with the same result as before. The distressing symptoms of the Measles began to abate within two hours after the first inunction and finally all disappeared without another bad symptom showing itself. At eight o'clock in the evening I was summoned to her bedside in great haste. I found the labor pains had returned with renewed energy and frequency. I immediately made an examination per vaginam; found the os uteri dilated to the size of a half dollar piece, soft and flaccid. I now determined to let the labor proceed for I was confident that all my efforts to the contrary would be unavailing. The labor terminated about 3 o'clock in the morning. The child was in a state of asphyxia, but the usual remedies for resuscitation being resorted to, proved successful in a few moments. The after birth was delivered in the course of an hour, but not without some interference. Hæmorrhage but slight and easily controlled. Convalescence, notwithstanding the presence of Measles was as speedy as the majority of cases of natural labor.

The characteristic eruptions of the Measles which were so well marked, on her face, neck, breast and arms all disappeared during the night. Her cough was now the only distressing symptom. Inunction was resorted to again this morning, (Sept. 4th.,) and the following mixture prescribed for her cough: R Tinct. Opii., Tinct. Lobelia, Tinct. Sanguinaria, Aqua. Camphor and Syr., Scilla Comp. aa ʒi., Simple Syr. ʒjss., Aqua Dist. ʒi. M. Of this I ordered a teaspoonful every two hours. Nothing was seen of any Measles after this date. Her breast began to secrete milk the second day; the mother and child are now both doing well.

REMARKS.—This case is interesting to the Profession in at least two particulars, viz: The happy result of the treatment by inunction and the complications of the case. That this will finally be the treatment of Rubéola I have no doubt. I consider it no longer an experiment.

ARTICLE VI.

Meeting of the Physicians of Whiteside County, Illinois.

Como, ILLS., Sept. 27th, 1851.

Pursuant to previous arrangement the Physicians of Whiteside County met at Union Grove, July 22d, 1851, for the purpose of organizing a County Medical Association, Doct. A. Smith, Prest. pro tem and Doct. H. C. Donaldson, Sec'y.

Committee to draft Constitution and By-Laws reported, which report after some amendments was adopted.

On motion of Dr. Abbott the code of ethics adopted by the Rock River Medical Society was adopted by the Whiteside County Medical Society.

On motion, the Society proceeded to the election of Officers for the succeeding year which resulted as follows:

DR. A. SMITH, of Lyndon, President.

“ J. C. BARDWELL, of Prophetstown, Vice President.

“ A. G. PORTER, of Como, Secretary.

“ H. C. DONALDSON, of Lyndon, Treasurer.

Board of Censors—Doct's. Hudson, Abbott and Donaldson.

President appointed Dr. Abbott to read an original Essay before the Society at its next meeting. The annual meeting of this Society is on the first Tuesday in each June, and the semi-annual meeting on the first Tuesday in December.

The following Resolutions were unanimously adopted, viz :

Resolved, That should any individual refuse to pay the just bill of his Physician by taking refuge behind the late Homestead Ex-Emption Act, it shall be just and proper for such Physician to refuse further attendance until payment or satisfaction is rendered.

Resolved, That any neighboring Physician on being duly informed of such refusal to pay, shall decline any attendance until the first Physician is paid or his debt secured.

Resolved, That the North-Western Medical and Surgical Journal be furnished a copy of the above for publication; also, the Chicago Democrat, Chicago Tribune and the Chicago Journal.

On motion, the Society adjourned to meet at Lyndon on the first Tuesday in December, 1851.

A. SMITH, *President*.

H. C. DONALDSON, *Secretary, pro tem*.

ARTICLE VII.

Clinical Lecture in the Medical Ward of the Illinois General Hospital. By N. S. DAVIS, M. D., one of the Physicians to the Hospital.

October 13th, 1851.—*Gentlemen* : The case before you, and the one to which I shall chiefly direct your attention this morning, is somewhat complicated and possessed of much practical interest. The patient is a female, aged about 24 years, unmarried, a native of Ireland, and before being afflict-

ed with the disease was employed as a servant girl. You see in her countenance an expression of sadness or dejection, and in her arm, here, evidences of great emaciation, there being little left beside the bones, muscular fibres, and skin. Her pulse is 80 per minute, small and easily compressed; her tongue smooth, red, and moist; gums swollen, dark red or purple and spongy; skin dry and harsh; abdomen distended and somewhat tympanitic; bowels habitually very costive; thirst excessive, and appetite craving with painful and imperfect digestion. The urine, a specimen of which is contained in this vial, is pale or limpid like water, and very copious, amounting to about two gallons daily. Its specific gravity, as ascertained by Mr. Johnson, at present *Interne* of the Hospital, is 1030, that of healthy urine averages about 1020. According to the rule adopted by Dr. Christison for ascertaining the quantity of solid matter in 1000 parts of urine, the excess of specific gravity over 1000, is to be multiplied by 2.33, which would make this specimen contain 69.90, a considerable excess over the average of health. It also possesses a sweetish taste indicating the presence of sugar. To determine this important point with more certainty, however, we must resort to other tests. If I place a drachm or two in this test-tube, add to it a small quantity of the Solution of Caustic Potash contained in this bottle you see no immediate change, but on holding it in the flame of a spirit lamp until it is heated to the boiling point you see it rapidly assuming a deep orange yellow or redish color. This is called Moore's test, but it is not as reliable for detecting sugar as that devised by Tommer, which I will now apply. I place another drachm of the urine in this clean test-tube and add enough of the saturated Solution of Sulphate of Copper to give it a slight blueish color. I now add a Solution of Caustic Potash which throws down a copious green precipitate of ammoniate of copper, which by continuing to add the alkaline solution in excess, is re-dissolved leaving

as you now see, a clear green solution. If I now hold this in the flame of the spirit lamp until the Ammonia is driven off the sugar in the urine is decomposed, part of its Oxygen unites with the Copper forming an insoluble red Oxide, the presence of which is indicated by the rapid change from the green to a very distinct red, as you see taking place here. The changes here detailed and exhibited to you are a very certain indication of the presence of sugar in the specimen of urine examined.

And the results in this case enable us at once to arrive at the certain and important conclusion that the patient, just now before us is laboring under an aggravated degree of Diabetes Mellitus. She was admitted to the Hospital only three days since, and her history, as nearly as can be ascertained, is briefly as follows, viz: Eighteen months since while engaged in washing windows in one of the Hotels in our city, the usual period of menstrual flow arrived, commenced in its usual regular and natural manner, but the patient continuing to work in the wet and cold it was entirely suppressed before the end of the first 24 hours, and has never returned since.

This was the beginning of ill health, she having previously enjoyed as good health and as regular a flow of the menstrual fluid as could be desired. Sickness, however, soon followed the suppression and a Physician was called on who prescribed cathartics, alteratives, and emmenagogues, but with no other effect than the palliation of symptoms. During the first six months she had one or two attacks of fever, the last of which left her much debilitated and with a dry harrassing cough. The latter continued with gradually increasing emaciation until about six months since, when the cough gradually diminished and has now entirely disappeared. The emaciation, however, has continued to increase; she has become more and more anemic, and her vital energies more impaired until she presents the appearances and symptoms al-

ready detailed. The most careful examination, aided by Auscultation and Percussion, does not enable us to detect any tubercular deposits in the lungs or enlargements of any of the abdominal or pelvic viscera.

It is now impossible to ascertain at what period in the progress of this case the Diabetic affection commenced, or how far it has operated to prevent the return of the Menstrual secretion. It is most probable that the sudden suppression was first followed by those congestive and inflammatory attacks which ordinarily occur in such cases. These were combated and to a great extent, at least, removed by medical treatment, but the Menstrual function not being restored, the functions of the stomach and lungs next became permanently impaired, giving rise to costiveness, indigestion, and cough; at first directly threatening the development of tubercles and consumption, but the indigestion assuming that peculiar form or state, which, Prout and others suppose, gives rise to the conversion of the Carbonaceous portions of food into sugar, and its consequent introduction into the circulation in such quantities that it cannot be further assimilated or appropriated for nourishing the tissues, it soon stimulated the kidneys into excessive action, thereby commencing the diabetic affection which is now so plainly and fully developed. As a consequence of this protracted chain of morbid action, we have now great emaciation; an impoverished and anemic condition of the blood; impairment of the solid textures indicated by the purple and spongy gums; impairment of nervous energy both as regards the nerves of organic and animal life, and consequent loss of the peristaltic muscular actions producing obstinate costiveness and flatulency; while Menstrual suppression still continues and the food which is taken in large quantities is converted into sugar only to be eliminated in the copious renal secretion. Such is the most rational pathological view of the past history and present condition of the case before us.

And what are the prospects and curative indications which it suggests?

The Prognosis in all cases of Diabetes Mellitus is unfavorable. The disease seems to have its origin in the defective or altered state of the digestive and assimilative functions, the precise causes and conditions of which are yet involved in obscurity, and hence we are without a completely rational and successful mode of treatment. The special Prognosis in the case before us is still more unfavorable from its origin and uterine complication. The remarks already made, however, readily suggest several well defined and important indications for treatment.

The first is, to cut off the supply of materials most readily converted into sugar, by a proper regulation of diet. Such materials are made up of the Carbonaceous class of aliments, and especially that variety chiefly composed of starch, as the farinaceous vegetables and tuberous roots. These, together with saccharine matters, should be carefully excluded, and the patient confined to an animal diet as exclusively as is consistent or compatible with the continuance of healthy digestion. A diet exclusively of muscular flesh is indicated by the disease, but there are very few patients who can maintain digestion any considerable length of time without a small supply of bread or other farinaceous article as a part of their food. The drinks should be bland and unstimulating, but may be allowed in liberal quantities without detriment and greatly to the comfort of the patients.

The second indication is to restrain the inordinate secretory action of the kidneys. For this purpose we have no other remedy equal in efficiency to Opium, given in moderate doses and repeated at regular intervals. Universal experience has given it the foremost rank as a palliative in the treatment of this disease. Its tendency to increase the constipation of the bowels is, however, a strong objection to its use, and some-

times renders its omission necessary. In many cases the Alkaline earths, especially the Oxides and Carbonates of Magnesia, are decidedly beneficial in lessening the urinary secretion, while they also tend to relax the bowels.

The third indication is to increase the tone of the digestive organs, improve the quantity and quality of the blood, and thereby arrest the emaciation and restore the healthy condition of the solid tissues. Aside from the proper regulation of diet, of which I have already spoken, the remedies best calculated to fulfill this indication are the different Salts of Iron and the bitter vegetable tonics. Of the preparations of Iron I have found none better generally than the Muriated Tincture in doses of from 10 to 20 drops three times a day. Within the last few days my attention has been called, by H. A. Johnson the intelligent Intern of these Wards, to an article which he had translated from a French Journal, detailing the use of a new remedy for Anæmia, called extract of Sanguinis. It is prepared by taking fresh beef's blood, allowing it to coagulate separating the serum through a filter and drying the clot by evaporation until it can be readily reduced to a dry powder. Of this from ten to twenty grains are given three or four times a day. You will readily perceive that this, so called extract, is simply the red-corpuscles and fibrin of the blood, retaining all the Iron and a portion of the other saline constituents, in that form most nearly resembling their condition in the blood of the healthy living subject. Hence it contains the very constituents most needed to upbuild and improve such cases as the one before us.

The fourth, and last indication, is to restore the long suppressed Menstrual secretion. This, however, cannot be done unless the solids and fluids of the system are greatly improved and replenished first. The quantity and quality of the blood must first be so far restored as to furnish the materials for a healthy menstrual flow, or the whole list of direct and in-

indirect emmenagogues will be resorted to in vain. Indeed, in the present condition of the patient the very best remedies for fulfilling this indication, are indential with those best calculated to fulfill the third as already alluded to.

With this brief exposition of the case, I shall direct the patient a diet of animal food consisting of Beef, Mutton, or Chicken either fresh or salted, and meat broth, with a very limited quantity of wheaten bread. She will take of the Extract of Sanguinis, just described, 20 grs. three times a day; and a small powder of Aloes and Castile Soap or Carb. Magnesia as often as may be necessary to obviate costiveness. If the bowels become less constipated and the urine continues as copious as at present, half a grain of Opium may be added to each dose of the Extract after a few days.

The further progress of the case you will have abundant opportunities of observing during the term of Clinical Instruction which is now but just commenced.

Part 2—Reviews and Notices of New Works

ARTICLE I.

Proceedings of the Illinois State Medical Society at its first Annual Meeting held in Peoria, June 3d, 1851. Published under the supervision of the Committee on Publication. Chicago, JAS. J. LANGDON, Book and Job Printer, 1851. pp. 59.

We are in receipt of a copy of this document. It has been late in making its appearance, partly as we understand owing to the delay in gathering together the papers, from different individuals, of which it is principally composed. We could have pardoned a much longer delay, however, if it would have secured more accuracy in the printing.

There are some mistakes of rather an amusing character. In Dr. Thompson's report, it is said an Autopsical examination of the brain found "the pea-water engorged."

The first twenty-two pages of the document are occupied by the minutes of the proceedings of the Society and Prof. Herrick's Address, both of which have been reported in the Journal. The remaining portion is made up of three papers, viz: Chloroform in Surgical operations, by E. S. Cooper, M. D., The Report of the Committee on Practical Medicine and a partial Report from the Committee on Obstetrics, by R. Rouse, M. D., after which follows a list of the members of the Society.

The paper of Dr. Cooper says, the author "has had an opportunity of testing the effects of Chloroform as an æsthetic agent in seventy-nine cases of Surgical operations since the organization of the State Medical Society. Most of these, of minor importance, so far as the operations are concerned, but

displaying no less, as the writer thinks, the merits of the article itself in producing insensibility."

The only remarkable case among these was one which is reported, in which the rapid inhalation of Chloroform produced prostration, suffocation, and asphyxia which only gave way by the most active stimulation.

A subsequent attempt proved that the Chloroform could be safely used in the case by commencing its inhalation gradually. The case is instructive and worthy of note.

The Report on Practical Medicine by Dr. Samuel Thompson, Chairman, first discusses the subject of Intermittant and Remittent Fevers. The difficulty of defining any of these as congestive Fever is clearly pointed out, and the terms Malignant Remittent or Intermittent proposed as a substitute.

The prevalence of a form of disease called Typhus or Typhoid Fever within the last few years, in different parts of Illinois, is noticed, but the reporter is not able clearly to make out its nosological character.

The disease called Milk Sickness receives the attention it deserves. But we should incline to differ from the author who calls it a "truly epidemic disease," as our own observations and the history we have read of its prevalence would compel us to call it strictly endemic in its character. It is by the showing of the report itself, confined to circumscribed localities.

The author of the report, whom our readers will recollect published a long and exceedingly well written article upon the subject of Malaria in the number of this Journal for May, 1850, seems to have contracted a Miasmataphobia as he attributes to it the production of many of the diseases noticed, among which may be mentioned, not only the Fevers of the West, but Milk Sickness and Asiatic Cholera. In the article above referred to the position is taken in reference to the Milk

Sickness and it is re-asserted in the report before us. The treatment of the malady is discussed at length with reports of the practice of various practitioners.

The conclusion to which the author arrives is that Bicarb. Soda freely given with a little Sulphuric Acid to form an efferversing draught and also a Sulphate of Soda to act as a cathartic, with Quinine and Calomel are the principle remedies of importance. Tonics in the latter stage of the disease are recommended.

The course of treatment for this disease that we found safest and the most speedily successful, was suggested to us by Dr. N. Wilson now of Iroquois Co. Ill., who had acquired an extensive reputation for the success of his treatment of Milk Sickness on the Wabash River in Indiana. The most prominent symptoms of the disease are the nausea and vomiting and the obstinate constipation, the former of which are much in the way of the use of remedies for relieving the latter, which in turn seems to keep up the sickness; as catharsis usually brings relief. The treatment referred to was, to select some mild innocuous cathartic, as equal parts of Pulv. Rheubarb and calcined Magnesia which Dr. W. preferred, and repeat the dose of it as often as rejected by the stomach, or at least at short intervals, until free catharsis was secured, when the danger is generally overcome. After this some mild tonics with a sufficiently free use of laxatives to prevent a return of coprostasis, completed the cure. The use of Calomel was early abandoned, on account of the danger of producing ptyalism from its remaining too long in the system before operating, and the conviction that any other cathartic that could be retained so as to act, was equally efficacious. Relapses, to which patients are exceedingly liable from much exercise after an attack of the disease, may be prevented by attention to keeping the bowels open regularly, which should always be strictly enjoined in discharging convalescents from this malady.

After some remarks upon Pneumonitis, Scarlatina, Rubella, and the use of Iodine injections in dropsical affection, by Prof. Brainard, the report takes up the subject of Cholera and devotes the remaining twelve pages to its consideration. But little is said of its treatment, and nothing seems to have thrown new light upon this dark part of the subject.

The cause of the disease claims the principal share of attention, and singularly enough in a document professing to be a report of what has transpired, the author has compiled a most imperfect history of the appearance and progress of the disease, selecting mostly such parts of the written history, as give plausibility to his own peculiar views of the origin of the disease, or arguments against those entertained by others, italicising the phrases and sentences that are designed to bear upon the questions at issue.

He first undertakes to disprove the contagiousness of Cholera and subsequently to establish its malarious origin. His success and means of accomplishing these undertakings we will endeavor to make apparent.

In giving a history of its introduction into Illinois, the author refers to its appearance at Quincy and Galena early in the spring of 1849, where the reporter says in italics, "it did not appear to spread," omitting to notice the fact that it was brought to Galena by emigrants from the lower Mississippi where the disease was at the time prevailing.

In giving the history of its appearance in Chicago, the author gives credit to the editor of this Journal for his facts, but singularly enough asserts that "it did not appear to spread much in Chicago till the 5th of June." My statement is, that "the disease had prevailed in other parts of the city for two months before this (the Norwegian) neighborhood, (where it prevailed with the greatest mortality) was affected." We would gladly omit this correction but justice to the cause of truth seems to demand that history shall not be mis-quoted

That the Cholera has generally, as in Chicago, prevailed more extensively in hot weather than in cold, is a fact so universally admitted that it was not necessary to mis-state the facts of the case to make it appear; nor even to put the phrase "till the heat of July had set in," in italics.

It is very singular that the reporter should have made no mention at all of the introduction of Cholera into the numerous isolated settlements in the State, the history of which in a large number of instances, well authenticated by numerous references, was before him. The only explanation of this omission that appears plausible is that they furnish no evidence of the Malarious origin of the disease and most clearly and forcibly corroborate the doctrine of its communicable nature.

The arguments of the report drawn from the coincidence of the prevalence and origin of Cholera in several places where "the atmosphere was humid, murky, close and oppressive," and in some marshy and malarious places, and his showing that high, dry and sandy places might be sources of malaria from the vegetable products being washed into the substratum to putrify, are fair specimens of the arguments generally urged against the doctrine of contagion.

The first is deficient in not being by any means a uniform attendant upon the prevalence of the disease as its fearful mortality in Norway and Sweden during the intense cold of winter, and many other instances in its history prove; and the second affords no explanation of its frequently sparing marshy and generally unhealthy districts, and often affecting otherwise the most healthy spots on the face of the earth.

Great stress is laid upon the fact, that exposure to Cholera does not always propagate the disease, which may be set down as *the argument* of the non-contagionists, which, however, only proves that there are favorable and unfavorable conditions for its propagation. The same may be said to obtain in

a greater or less degree in reference to all contagions, and if more striking in Cholera it only proves that it is peculiar in this as in many other respects.

In summing up the evidence in reference to the disease, furnished by a table of its prevalence in one part of the City of Chicago in the article so frequently referred to in the report before us, the inference was drawn that the period that elapsed between exposure and attack was generally one day. This statement is seized upon by the author of the report and the conclusion arrived at that "either the assumed time of incubation is a total error or the cases upon which the arguments for its primary importation and communicability are founded are totally irrelevant to the question." If a stated period of incubation had been determined and no reference to the necessity of a proper condition of the system for the action of the poison made; nor the fact that contagious formities may be imported referred to, the conclusion of the author might be a very good one; but as this is only a comment upon the result of the statistical table above referred to, and all of the other points were maintained in the article from which the extract is made, it is a very violent conclusion and shows the necessity of unfair means to make out an argument. This necessity is further corroborated by the fact that the extract from the article as given in the report, and from which the conclusion is drawn, is garbled and thus rendered absurd in its meaning. The following is the extract, which is twice quoted in the report, taken from the middle of a paragraph of comments upon the "Table showing the number of those exposed—The time between exposure and attack, and the duration of the disease in those who died in three blocks in Chicago." It will be seen that such an extract is an unwarranted perversion of the meaning of the author. It is as follows: "The emigrants came by way of New York and Buffalo a few days before taken, where the disease was prevailing

when they passed. It shows the length of time between exposure and attack to be generally about one day which strictly corresponds with the history which follows." What shows? Why according to this extract the emigrants coming by way of New York and Buffalo; when with the context no one could reasonably mistake its reference to the table immediately above the paragraph, from the middle of which these two sentences are taken.

Immediately after the second insertion of this extract the author congratulates himself upon having disposed of the doctrine of contagion, saying "Much more might be adduced had we time or space but we conceive it needless."

Whether the author of the report aimed at ascertaining the truth in regard to the question discussed, or at vanquishing by special pleading the advocates of the doctrine of contagion, his document is so worded as to convey the impression to the reader that he conceived the latter to answer his purpose best, for he has apparently hunted for weak points in the arguments and left unnoticed those which are inexplicable upon any other hypothesis.

That Cholera is produced by a specific and not a general cause, we think must be apparent to any one who has taken the pains to examine the history of its spread from place to place in its marches from India to California. That it is portable we think clearly established by its invariably following in those marches the channels of human intercourse; by its being introduced into isolated and remote settlements, as at Folly Island and almost innumerable instances that have occurred in our own country, many of which have occurred in Illinois; and that it is communicable from person to person we think clearly manifested by its extending from points of introduction, in most instances traceable, through direct channels of communication to adjacent neighborhoods. We have in vain sought for a satisfactory explanation of these historical

facts by any other than the doctrine of communication. The only one that *appears* to answer the purpose is that of Prof. Mitchell of Philadelphia, attributing to cryptogami the poison, which amounts to little more than an attempt to explain the essential nature of the virus by which communication, or as he calls it, importation takes place.

These facts have been disregarded by the author of the report, while coincidences in particular cases showing that certain conditions are sometimes present, and instances where the disease did not spread, with points of dissimilarity between it and some other diseases, acknowledged to be contagious, from the sum and substance of his arguments. Now coincidences are of no account to the argument unless they generally occur; that a disease does not spread in every case of exposure does nothing toward proving that it is not by contagion that it is propagated where it does prevail, and that it is dissimilar to other contagious diseases, only proves its specific character, and that it differs in those respects from them, leaving the general fact of its being diffused from county to county and from place to place by channels of direct communication undisturbed and unaccounted for.

The Report of Dr. Rouse is a short, sensible, statement of his high appreciation of the value of Chloroform in mitigating the pains of Parturition. He bears testimony to its safety and utility in the strongest terms of commendation.

ARTICLE II.

On the Theory and Practice of Midwifery. By FLEETWOOD CHURCHILL, M. D., M. R., I. A., Hon. Fellow of the College of Physicians in Ireland, Member of the American National Institute, etc. With notes and additions by D. FRANCIS CONDIE, M. D., Sec'y. Col. Physicians, Philad., etc., etc. With one hundred and thirty-nine illustrations. A new American, from the last improved Dublin edition; pages, 510 octavo. Blanchard & Lee, Philadelphia, 1851. (From the Publishers, through S. C. Griggs & Co., Chicago.)

This is a new edition of our best systematic work on Obstetrics. It is so full of accurate information, and so clear of speculation and controversy, that it has deservedly been regarded as worthy of a place at the head of the long catalogue of works upon the subject that have been issued from the American press. Our readers, however, are so familiar with it that it is not worth our while to speak of it more at length.

It is got up in the good style in which the publishers are generally careful to clothe their publications.

ARTICLE III.

A Practical Treatise on the Diseases and Injuries of the Urinary Bladder, the Prostrate Gland and the Urethra. By S. D. Gross, M. D., Prof. of Surgery in the University of Louisville ; Member of the American Medical Association ; Author of Elements of Pathological Anatomy, etc., etc., with one hundred and six illustrations. pp. 726 octavo. Blanchard & Lee, Philadelphia, 1851. (From the Publishers ; for sale by S. C. Griggs & Co., Chicago.)

This work, for which there was a clear and pressing demand on the part of our Medical Literature, will be greeted by practitioners of Medicine and Surgery with no ordinary welcome, giving as it appears to do copious and clear delineations of the diseases which it discusses and their treatment.

We have not been able yet to give it a perusal, but from the high reputation of the author and the apparent marks of care in its production, we feel no hesitation in advising our readers to procure and study it. For want of time and space we shall be under the necessity of laying it aside for a more extended notice hereafter.

It is got up in the best style of the celebrated publishing house from which it is issued.

ARTICLE IV.

The Laws of Health in relation to Mind and Body : A series of Letters from an old practitioner to the patient, By LEINEL JOHN BEALE, M. R. C. S. pp. 256 duodecimo. Philadelphia: Blanchard & Lee, 1851. (From the Publishers, through S. C. Griggs & Co.)

This work treats of a subject which is of the utmost importance to mankind at large and is not designed exclusively for the Professional reader. However, as the Physician should always be posted up on the subject of Hygiene, that he may be able to give good and wholesome instruction to his patients and friends, it will be found worthy of a place in every Medical library. Physicians are too negligent of this subject generally. Few of them conceive it to be their duty to teach people how to prevent disease, being wholly satisfied with efforts to remedy their maladies after they have brought them upon themselves.

It is plain, however, that the old saying, that prevention is better than cure, is founded upon the true philosophy, and therefore the highest mission of the minister of health is to prevent sickness, pain, disease, and death by guarding against those violations of the laws of nature upon which they generally depend.

People are too apt to attribute to the dispensations of Divine Providence the ills that afflict them, especially sickness and unhealthy and shattered constitutions, when a little knowledge of the laws of health will generally show that their own imprudence has been the cause of such difficulties.

There are two reasons why this error prevails to so great an extent. The first is, that the people regarding their sickness

as Providential and look no further for its source. The second is, that Physicians do not inculcate among them the doctrines of the laws of health and a knowledge of the necessity of obeying them, perhaps because there is no good pretext whereon to attach a fee, and Doctors can as illy afford to work for nothing as any other class of community.

However, it will cost our friends but little effort to advise people to buy the book before us, urging as a most potential argument—one which will in many instances, at least, be convincing, that by studying it, they may save many Doctor's bills.

ARTICLE V.

Letters to a candid inquirer, on Animal Magnetism. By WILLIAM GREGORY, M. D., F. R. S. E., Professor of Chemistry in the University of Edinburgh. pp. 384, duodecimo. Philadelphia, Blanchard & Lee, 1851. (From the Publishers, through S. C. Griggs & Co.)

From a hasty glance at this work we infer that it is a defence of the so called Science of Animal Magnetism; but as the book has but just come to hand we are unable for want of time at present to give its contents an analysis.

There is so much claimed for Animal Magnetism, by its advocates, that makes too strong a demand on our credulity, that many of us are inclined to reject the whole affair altogether. And yet there are some manifestations that would seem to show that there is an influence exerted by its manifestations upon certain subjects, that is worthy of serious investigation. The most satisfactory explanation of these, that

we have seen, refers the physical phenomena manifested to the influence of the mind ; which seems to be corroborated by the fact, that the susceptible subjects are imaginative, speculative and nervous people.

To those who are curious on the subject, the work before us offers the attractions of a distinguished author, and a systematic arrangement of the topics discussed.

Part 3.—Selections.

ARTICLE I.

Remarks on Digestion, suggested by the case of Carcinoma of the Stomach, reported in the August No. of this Journal. By N. P. LATTIMORE, M. D.

In reading the interesting Report of Dr. P. H. Strong on "Carcinoma of the Stomach," published in the August number of your valuable Journal, I was struck with the first quere with which the doctor closes his communication. He says, "where was digestion carried on? Was it by the inucous coat, &c., or did the duodenum assume the function?"

Taking the experiments of Mr. Bernard as a basis, the duodenum did not "*assume*" the function, for, according to him, digestion is *always* performed in the duodenum.

This doctrine is certainly not in accordance with the generally received notions upon this important question of physiology, yet, it is in direct accordance with experiment, and with observation, the two great bases upon which every truth must rest. M. Bernard, the pupil of the distinguished Magendie, although yet a young man, has enriched philosophy with many facts which do much to clear up some of the hitherto obscure points of this department of medical science. Made a member of the "Legion d' Honneur" for his discovery of the formation of sugar in the liver,—receiving the sanction of Magendie, Berard, and other eminent physiologists, his doctrines have become a part and parcel of our science; they only remain unknown on this side the Atlantic, because their author has not yet published them.

Where is digestion formed? Before answering this question, let us first determine what principles are the subject of this process. These may be reduced to three, viz: fibrine, sugar, and fat. These three matters are digested by means of certain secretions, viz., the saliva, the gastric juice, the bile, the pancreatic juice, and the intestinal secretion.

The office of the saliva seems to be to moisten the food during its mastication and swallowing, for we find it secreted in

a direct ratio with the dryness of the masticated food. But upon this point we need spend no time.

After deglutition, the food enters the stomach, and is there subjected to the action of the gastric juice, which, like the saliva, is not secreted during abstinence. The gastric juice consists of

Water,	(parts)	98
Uncombined acid,	"	}
Mucus,	"	
Phosphate of lime,	"	
Pepsin,	"	
		2
		100

The free acid is the lactic, and this, with the pepsin, are the active principles of the secretion.

Pepsin is an azotized substance, soluble in warm water, and if a few drops of acid are added to the solution, it will present all the properties of the gastric juice. This substance acts best at a temperature of 140° —that of the body during digestion.

Of the three alimentary principles, (fibrin, sugar, and fat,) the first, or fibrin, is the only one acted upon by the gastric juice, the other two passing into the duodenum unchanged.

In what manner does the gastric juice act upon the fibrin? Place a piece of meat in this secretion, and the first change observable is an increase of size, accompanied by a transparency of the edges. This change takes place as readily in acidulated water, as in the gastric juice, and is merely the physical effect of imbibition. But after a certain time (depending on the size of the ingested matters and the agitation to which they are exposed) the fibrin softens, and finally is wholly dissolved. Such is the action of the gastric juice upon all azotized ingesta; the non-azotized alimentary matters, as before remarked, are not affected by the secretion.

The result of this action is a fluid called chyme, and for a long time it was supposed that, in the production of this fluid, some chemical action between the gastric juice and the food was necessary. This opinion is now known to be erroneous, for if a portion of chyme resulting from the action of the gastric juice upon fibrin, be placed under the microscope, the existence of perfectly formed muscular fibres is evident; showing that the meat has been only disintegrated and not dissolved. No chemical change has as yet taken place, and the

chyme is as really unfit for assimilation as was the fibrin itself.

After leaving the stomach, the chyme enters the duodenum, when it is subjected to the action of the bile, pancreatic juice, and intestinal secretion, and here it is that the most important part of the digestive process is accomplished. In man, the bile and pancreatic juice enters the duodenum by a common duct, and are thus mingled before their arrival in the small intestines. This is not true, however, in some of the lower animals, the rabbit, for example. In every case where these secretions are conveyed to the duodenum by separate ducts, the bile is first discharged. Thus in the rabbit, the hepatic duct enters the duodenum just below the pyloric orifice of the stomach, while the pancreatic duct comes in fifteen inches lower down. The most natural course, then, seems to be to consider, in the first place, the action of the bile upon the chyme, which it will be remembered consists of disintegrated fibrin, of fat, and of sugar; it is simply a solution of the ingesta in the gastric juice, and not a fluid *sui generis*.

Now the moment the chyme comes in contact with the bile, a precipitate is formed upon the intestinal villi, consisting of gelatin, albumen and casein, which have been dissolved in the gastric juice, united with the chloric acid of the bile. Then, *and not till then*, will these matters resist decomposition. Expose a portion of chyme to the action of the atmosphere, and in a few hours putrefaction will take place. If, however, a certain quantity of bile be mixed with the chyme, putrefaction is no longer possible. If yeast and sugar be mixed, fermentation immediately ensues, but it ceases the moment bile be added. The great office of the bile seems to be to prevent the decomposition of the alimentary matters which would necessarily take place without its presence. The chemical action which takes place during these changes, is not yet known. A simple experiment will show the influence of the bile in preventing fermentation; mix emulsina and amygdaline (both principles of the bitter almonds) and a decomposition results which produces prussic acid. If the two principles be thrown into the stomach together, the change takes place, and, if in sufficiently large quantities, death results. The same occurs if the amygdaline be administered by the mouth and the emulsine by the rectum; but reverse the pro-

cess, give the emulsine by the mouth and the amygdaline by the rectum, and no prussic acid will be formed, because the bile coming in contact with the emulsine, removes its power of fermentation. Such, then, is the office of the bile.

The pancreatic juice, like the saliva and the gastric juice, is secreted only during digestion. In its action it cannot well be considered separately from the bile, because it always acts in conjunction with it, unless removed from the body. However, when so removed, it is found to dissolve fatty bodies as well as the azotized matters which have been precipitated by the bile, and also to convert the starch group of alimentary matters into sugar. Fat, during the digestive process, undergoes no chemical change, for we find it in the thoracic duct possessed of all the properties of fat; fat and lymph being the only constituents of chyle. How is fat capable of absorption? The gastric juice does not act upon it, nor does the bile, excepting to prevent its putrefaction. The only change it undergoes is a lessening of its globules, which are too large to be admitted into the lacteals. This diminution of its globules is accomplished by the pancreatic juice. Obstruct in any way the pancreatic duct, and the fat, incapable of absorption, is carried off with the excrement, producing that form of diarrhoea known as "adipose"—which is always present in cancer of the pancreas. Such, then, is the office of the pancreatic juice.

En resume, then, we see that the stomach only serves to prepare the alimentary matters for digestion; it does not act at all on fatty matters; it only soaks, or swells bodies of a starch group; its greatest action is on albuminous matters, and these it only partially dissolves, for in the solution of meat in the gastric juice the microscope still shows us muscular fibres.

The bile precipitates the solution just mentioned, and renders the whole incapable of putrefaction.

The pancreatic juice dissolves the precipitates formed by the bile; emulsions the fatty bodies; and changes bodies of the starch group into sugar.

But little is known of the action of the intestinal secretion, or of the secretion of the glands of Brunner. They are contained in the mucus membrane of the duodenum, and are of a more complex structure than any other glands in the vi-

cinity. Brunner regarded them as accessory to the pancreas. Their influence upon digestion, however, is not fully known.

According to M. Bernard, then, the stomach acts upon alimentary matters only so as to prepare them for digestion, and it acts upon all bodies very nearly in the same way; while, for him, the duodenum is the grand center of the digestive process.

The case reported by Dr. Strong, comes to the support of this theory in more ways than one. Here digestion evidently could not have been performed in the stomach, and if that process was ordinarily accomplished here, the function would have been impaired, and thus attention long before have been directed to this organ.

Again, the limited capacity of the stomach satisfactorily accounts for the patient's craving only "the most concentrated diet."

The slight derangement of digestion might be premised when it was once known that neither the pylorus, nor the duodenum, nor the pancreas were involved in the disease;—the autopsy showing that the cancerous degeneration was almost wholly confined to the body of the stomach, none of the remaining viscera being involved excepting the colon, and that only slightly.

Trusting that I have satisfactorily replied to the quere, allow me to say, in conclusion, one word upon M. Bernard's views as to the ultimate disposition of the alimentary matters, or rather as to absorption. According to him, one only of the three principles, viz., fat, is taken up by the lacteals, and this it is which gives to chyle its white color. During abstinence the lacteals and the thoracic duct contain only lymph.

The other two principles, viz., fibrin and sugar, are absorbed by the veins, and their digestion completed in the liver. As they exist in the duodenum they are wholly unfit for assimilation, and it is only after passing through the liver that they are fitted for use by the economy.

M. Bernard's discoveries regarding the functions of the liver, perhaps constitute the most important contributions which have been made to physiology for the last half century, and an exposition of his views on this subject might interest many of your readers.—*Buffalo Med. Jour.*

ARTICLE II.

Diameters of the Fœtal Head, from measurements made in the Dublin Lying-in Hospital. By ADDINELL HEWSON, M. D., of Philadelphia. Communicated in a letter to Dr. MEIGS,

DEAR SIR:—Knowing the greatest interest which you always take in everything connected with medical science, and particularly with the branch of Obstetrics, I have availed myself of a short relaxation from my hospital duties, to draw up for you the results of some measurements of fœtal crania, which I made last spring whilst an interne of the Dublin Lying-in Hospital. It affords me particular pleasure to communicate the results of these observations to you, as it was from the perusal of your recent work on Obstetrics that I was induced to make them.

On comparing the estimates of the diameter of the fœtal head which you had given, with those contained in foreign works on Obstetrics, a great difference will be observed. Your diameters are far greater than those given by any foreign author. The question therefore presented itself to my mind, is the estimate given by those abroad too low, or is there really an ethnological difference? The accuracy and extent of your own observations precluded all thought of your estimates not being correct, and I therefore availed myself of the occasion which presented, to ascertain, as well as I could, wherein consisted the difference.

For this purpose I extended my observations to one hundred and sixty-six children, born in the hospital, between the 10th of March and the 13th of April last. I did not select cases, but made my measurements promiscuously, independent of age or sex, of every child born alive, and at full term, in the Institution, between those dates.

I employed in making these measurements, a pair of delicate turner's calipers, admitting of accurate adjustment, and an ivory scale marked to the twentieth and fiftieth of an inch. Each measurement was made with the greatest care, within twenty-four hours after the birth of the child, and registered at the time.

The sum of my measurements of the biparietal diameter, was six hundred and three inches and eighty-eight hundredths, which gives a mean of three inches and six-tenths, for that diameter. The sum of the occipito-frontal diameters was seven hundred and seventy-seven inches, and seventy-seven hundredths; the mean, four inches and sixty-eight hundredths. The sum of the occipito-mental diameters was eight hundred and eighty-seven inches and eighty-three hundredths; the mean, five inches and twenty-eight hundredths.

That you may consider these averages very just, I will mention the fact that there was not a very great range between the measurements. Thus for instance, in 196 biparietal diameters, but one exceeded four inches, (the mean being 3 6-10th inches.) You mention having met with sixty-eight exceeding that number in a series of one hundred and fifty measurements, the mean of which was three inches and eleven twelfths. The occipito-frontal diameter was five inches in six, out of my hundred and sixty-six, and in fifteen it exceeded that—the greatest being five and two-tenths. The occipito-mental attained six inches in three cases out of the hundred and sixty-six, in one other it reached six inches and one-tenth.

Having thus detailed to you the results of my measurements, permit me to draw your attention to the manner in which they will compare with the estimates given in standard foreign works. The following table contains the estimates given by some of the best English and French authorities. I have reduced the fractions in their figures to decimals, as my own are given in that scale. To the end of the table I have added my own estimates, that you may see at a glance how they compare :

	<i>Bi-parietal,</i>	<i>Occipito-frontal.</i>	<i>Occipito-mental.</i>
Baudeloque, . . .	3.34 to 3.50	. . . 4.50	. . . 5.50
Velpeau, . . .	3.50	. . . 4 about	. . . 5
Cazeaux, . . .	3.50 to 3.75	. . . 4.25 to 4.50	. . . 5.25
Burton, . . .	3.50	. . . 4.30	. . . 5.60
Ashwell, . . .	3.50	. . . 4 50	. . . 5.25
Murphy, . . .	3.50	. . . 4.50	. . . 5
Churchill, . . .	3.50 to 4	. . . 4 to 4.50	. . . 5
My own, . . .	3.60	. . . 4.68	. . . 6.25

You can readily see that, although mine are the highest,

there is not a great difference among them all, but, that this difference is greater when you compare my estimate with those of Baudeloque and Velpeau. M. Cazeaux has not, in reality, given a mean, but has only given the points between which it may be found, and I might with propriety have omitted his measurements altogether, had I not wished to give you an opportunity of comparing mine with those of the most recent of French authorities. I have also very much to regret that Dr. Churchill has done the same, for he is the best of authorities in Ireland, and his well known accuracy of observation would, I believe, by its weight, have confirmed my results.

Now let me compare my results with those of your own observations in this country, and that such a comparison may be a perfectly just one, I will take the mean of a series of my measurements, equal in number to that of which you have given the mean.

You give the mean of a hundred and fifty measurements for the biparietal diameter, as three inches and eleven-twelfths, or 3 inches 88-100ths. The mean of the first hundred and fifty of my measurements, is 3 inches 63-100ths, the difference is 25-100ths, or precisely a quarter of an inch. Your mean for the occipito-frontal diameter, from the same number of measurements, is four inches and ten lines, or four inches 83-100ths. My mean is 4 inches and 68-100ths; the difference is 15-100ths, or about 1-7th of an inch.

You give the mean occipito-mental diameter, from 126 measurements, as five inches and five-tenths. The mean of the first 126 of my measurements of that diameter, is five inches and 36 hundredths; the difference, 14-100ths, of an inch, nearly the same as for the occipito-frontal diameter.

Thus you see that there is a very essential difference between our results, a difference too great to be attributable to inaccuracy on my part alone. I am conscious of having taken the greatest care in all my observations, and although my estimates are higher than those to be found in any foreign work, still they lead to the conclusion that there really is some other cause than inaccuracy to account for the difference; and may we not seek for it in an ethnological difference in the cranial developement of the foetus? This is certainly a question

of interest, but it is not one which a single series of observations like my own can solve.

With much respect, I remain,
Yours sincerely,

ADDINELL HEWSON.

Pennsylvania Hospital, Sept. 13th, 1851.

—*Medical Examiner.*

ARTICLE III.

Case of Hermaphroditism. Dr. JNO. NEILL communicated to the College of Physicians the following curious example of Hermaphroditism, in a black brought to the anatomical rooms of the University of Pennsylvania.

She dressed as a female, and was apparently twenty-five or thirty years of age, judging by her teeth and general appearance. Very little information could be obtained concerning her habits and propensities. She resided among the degraded blacks in the lower portion of the city, and died from drunkenness and exposure, according to the verdict of the coroner's jury.

From a superficial view of the pelvis and genitals, almost any one would have pronounced the subject to have been a *hypospadiac male*, notwithstanding the large mammæ and the want of hair upon the face.

The breadth of the shoulders compared with the narrowness of the hips, and the form and development of the limbs would, alone considered, have indicated the male sex.

The representative penis was five inches in length, and one inch in diameter; and the skin, prepuce, glans, corona, fossa navicularis, and orifice of the urethra presented an appearance like that of a penis. But, by lifting up or turning aside the penis, it was found that the fossa navicularis was split, and that the urethra was wanting. In the place of the urethra

there was a groove reaching from the glans penis to an oblique opening in the perineum. The cuticle lining the groove was thin and shining; it was also deficient in pigmentary cells. On each side of this groove there was a fold of skin commencing near the middle of the side of the penis, and stretching around the perineal orifice. The interior of this fold showed it to be the analogue of the nymphæ or corpus spongiosum.

The perineal opening was the commencement of a passage common to the bladder and vagina, and its diameter was equal to that of a common-sized catheter, although the orifice appeared much larger, owing to its obliquity.

The scrotum existed upon one side only. It was corrugated with transverse rugæ, and covered as usual with hairs and sebaceous follicles. To the touch it gave the idea that it contained two hard bodies.

Internal Organs.—These were completely female, though not perfectly developed. The dissection was commenced by opening the abdominal cavity, and the contents of the pelvis were examined in connection with the external parts.

The bladder was natural in position and size. There was no prostate, and the urethra was about one inch in length, and opened into the perineal passage.

The uterus was small, but symmetrical; to its sides were attached the broad ligaments, holding it in its proper relation to the rectum and bladder.

The Fallopian tube of the right side had no free and fun-briated extremity, be terminated in a sac which was adherent to the ovary.

The ovaries were small, spherical, and corrugated; a section exhibited the usual fibrous tissue and visicles.

The right round ligament of the uterus was exceedingly thick, and appeared to be muscular; but, upon examination with the microscope, it was found to be composed of white and fibrous tissue. It reached to the bottom of the scrotum, where it was firmly attached.

The *scrotum* contained an irreducible omental hernia, probably congenital. The hernial sac contained also a small hardened mass, which was supposed to be a representative testicle, but it contained no true glandular structure or excretory tube. The vagina was of the proper length, but extremely narrow, especially where it approached the perineal orifice.

The above case would be classified under the head of

"*spurious heamaphroditism*" in the female, according to Professor Simpson's article on this subject in the *Cyclopædia of Anatomy and Physiology*.—*Quarterly Summary of Translations*.

ARTICLE IV.

Extracts from the Records of the Boston Society for Medical Improvement. By WM. W. MORLAND, M. D., Secretary.

May 12. Hydrocephalus.—Dr. COALE reported the case of A. H., born January 14th, 1849. Parents healthy; first child. Dr. C. was called to see her when she was two weeks old; found her laboring under cerebral symptoms, which soon resolved themselves into undeniable signs of water on the brain. She was treated with small doses of calomel, and afterwards with hydriodate of potassa, with apparent benefit at first. The head, however, steadily increased in size. The general health was good except when disturbed by teething—at which time she had occasional spasms, never amounting, however, to a general convulsion.

Measurement of head.						Inches.	Inches.
Sept. 12th, 1849.	Over crown from meatus to meatus	12½	Round	18½			
Nov. 1st, " "	" " " " " "	13½	"	19½			
" 28th, " "	" " " " " "	14	"	20			
May 10th, 1851.	" " " " " "	17½	"	23½			

The family having moved out of town in Aug. 1850, Dr. C. did not see the child after that except at rare periods. The last time was May 10th, 1851. Her height is now thirty-one inches; she lies on her back; is blind, but hears, though imperfectly. The pressure above has forced down the vault of the orbit so that the eyeball seems lower, and more covered by the lower than the upper lid; much of the white above the cornea being exposed, whilst the cornea is half covered by the lower lid. The mouth contains the usual number of teeth. Motion of limbs perfect, but feeble, except of right arm, which is paralyzed almost entirely. Fond

of throwing the left hand about, and with it occasionally feels the right arm, and resists any attempts to meddle with it. Extremities cold, making it necessary to keep a good fire in the room day and night through the winter. Never cries or frets. Takes, three times a day, ten ounces of milk, sucked from a bottle. Bowels open with regularity once a day.

The child died two months and a half after this, without any remarkable change.

May 26. Otorrhœa of Twenty Years' Duration, terminating fatally from Hemorrhage. Case furnished by Dr. F. H. GRAY. Dr. PARKMEAN showed the specimen.—F. C., twenty-one years of age, of scrofulous habit, though having a good share of health, had been troubled with a purulent discharge of fetid character from the right ear, from infancy.

On the evening of April 10th, 1851, patient rode several miles on horseback, and on the following morning complained of general uneasiness, though sufficiently able to attend to his ordinary business. On the morning of the 15th, severe pain commenced in right ear, which continued for three successive days, at the end of which period, copious and offensive purulent discharges found their way into the meatus auditorius and likewise into the mouth. Patient was greatly relieved by the discharges, and was able to walk and ride out, though he still suffered from headache, until the morning of the 21st, when some coagulated blood was ejected from the mouth. Copious hemorrhage took place from the ear into the mouth at intervals, varying in quantity from ʒiv to Oj , during the next twenty hours, when he quietly laid himself back, and expired. During the whole illness, there was an almost daily occurrence of vomiting, with the pulse unusually slow, possibly to be referred to the influence of narcotics.

At the autopsy, there was found a slight bloody effusion in the lower surface of the cerebellum, proceeding from a small gangrenous opening in the posterior surface of the right lateral sinus, just before it terminates in the jugular vein; the sinus was also ulcerated on the side next the petrous portion of the temporal bone, and blood was extensively effused into the cavity of the ear and into the cellular tissue behind the pharynx. The petrous portion of the temporal bone, sawn through and exhibited, showed the cavity of the ear deeply affected with caries, and undoubtedly the inflammation had spread from this point, involving the sinus. The specimen is in the Society's Cabinet.—*Amer. Jour. Med. Sci.*

ARTICLE V.

An Ovary removed by mistake for a Labial Cyst.

At one of the late meetings of the Surgical Society of Paris, M GUERSANT, Chief Surgeon to the Hospital for Children, brought forward a case in which an error in diagnosis was committed, and which ended fatally. The patient was a little girl, eleven years of age, who, ever since she was one year old, had in the left labium a small painless tumor. Of late, however, this tumor had become troublesome, and interfered with walking. When examined, it was found of the size of a small walnut, situated in the thickness of the labium, and extremely movable, so much so, that it could be pushed downwards to the most posterior portion of the labium, and upwards as far as the external ring. It was, however, impossible to press the tumour into the ring, which latter presented no abnormal dilatation. The tumour had a great deal of analogy with a testicle. M. Guersant looked upon it as a cyst, and resolved to remove it. A longitudinal incision brought into view a membrane much resembling tunica vaginalis, and having the aspect of the peritoneum. Through this membrane an ovid body was observed, which was no other than the ovary; it was attached to a pedicle formed by the Fallopian tube, which ran into the abdomen through the inguinal canal. M. Guersant placed a ligature on the pedicle, and cut out the ovary. Acute peritonitis occurred the very next day, and the patient died on the third day after the operation. M. Morel mentioned during the discussion that he had had an opportunity of seeing a tumour of the same kind in the labium, and formed by the ovary; no modification of size or sensibility was noticed to occur at the menstrual period. M. Lenoir stated that Pott has related a case in which the two ovaries were removed by an error in circumstances analogous to those of M. Guersant's patient.—*Prov. Med. and Surg. Jour.*, Aug. 6th, 1851, in *Amer. Jour.*

Part 4.—Editorial.

ARTICLE I.

PROF. DAVIS' INTRODUCTORY LECTURE AT THE OPENING OF RUSH MEDICAL COLLEGE.

Prof. DAVIS' Lecture Introductory, to the regular course of Instruction in the Rush Medical College, on the 3d inst., was an able, clear and unanswerable argument in favor of increasing the facilities for students to acquire a sound and thorough Medical education, as the chief means of elevating the dignity and usefulness of the Medical Profession.

He proved, first, from reliable authority, history and reports of medical travellers, that the number of those professing and practicing the art of healing, is as great, and generally greater, in those countries where the Profession is degraded by the lowest degree of ignorance.

Secondly, that the intelligence and usefulness of the Profession in all countries, bears an intimate relation to the means afforded in those countries for acquiring a knowledge of the science and art of Medicine. That, although the relative number of practitioners to the population in this country has not increased with the rapid multiplication of Medical schools, the number of those who prepare themselves by attending upon the means of instruction before entering upon the practice, has been greatly augmented.

Thirdly, that Hospital instruction is an essential and indispensable part of the education necessary to make good and competent practitioners. To prove this position, he quoted the repeated resolves of the American Medical Association,

which most emphatically insist upon it, and declare that, "College Clinics" are not recognized as substitutes for Hospital Clinical Instruction. Upon this subject, we cannot refrain from quoting the language of the author. It is so full of truthful illustration and sound reason, that we are sure it will carry conviction to every candid reader, as it did to the large and attentive audience that heard it :

"Notwithstanding these direct and oft repeated recommendations of the Association, less than one half of the whole number of Medical Colleges in this country, are so located as to afford the students in attendance on them, any opportunity for witnessing Hospital or bed-side instruction. And more than one third of the entire number of students, who annually resort to Colleges for instruction, resort to those only, where no Hospitals either do or can exist.

But, why are these things so ? Why are a greater number of students annually educated in the schools at Castleton, Woodstock and Pittsfield, than in the time-honored one at Boston, with its free access to one of the best Hospitals in the country ? Or, why do we find less than 200 annually visiting the ample Commercial Hospital of Cincinnati, while more than 300 congregate in the schools at Cleveland and Columbus in the same State ? It is not because Medical students are indifferent as to the extent and quality of the instruction which they shall receive ; neither is it because they attach no importance to demonstrative or true clinical instruction. But the true reason is found in circumstances of an entirely different character. The necessary cash expenditures for Lecture fees, boarding, &c., during a single College term in Boston or Cincinnati, for example, are very nearly twice as much as are required in either of the smaller places named. Hence, all those students who are unable to pay from \$84, to \$105, for Lecture fees, in addition to the increased price of board in our large cities, where alone Hospitals, worthy of the name, can be supported, must be content to forego College instruction altogether, or resort to those schools located in country villages, where lower Lecture fees and cheaper board, bring the expenditures within their means. It is thus seen that pecuniary considerations alone, deprive one third of all the Medical students in this country, of the most valuable part of Medical instruction.

In making this assertion, and the preceeding comparisons, I make no reference to the relative ability or learning of the individual professors engaged in one school or another, but I refer solely to the necessary means and facilities which their respective locations enable them to furnish the student in his search after a thorough knowledge of his profession.

The rapid multiplication of Medical schools during the last 20 years, and especially the increase of those located remote from large cities and great Hospitals, has been witnessed with regret by many of the profession; and to the active rivalry existing among them, has been attributed the present low standard of Medical education among us. Here, however, as is too often the case, a partial comprehension of facts has caused mere effects to be mistaken for causes. If any one of the schools to which we just alluded were stricken from existence to-day, leaving the expense necessarily incurred in attending those that would be left, the same as heretofore, it would in no degree either elevate the standard of Medical education or extend the usefulness of the profession. On the contrary, it would produce directly the reverse effect on both, by placing the schools and the profession in the same relative position as they were in this country during the first quarter of the present century. Those students whose pecuniary resources would enable them to expend from \$200, to \$250, for each course, would continue as heretofore, to avail themselves of College instruction, while a very large proportion would be wholly unable to do so, and would consequently gain what knowledge they could from their preceptors and their text-books and enter directly on the duties of practice without ever seeing a College or a Hospital.

Instead of lessening the whole number of Medical students, as many seem to suppose, it would simply lessen the relative proportion of those resorting to Medical schools for instruction, and thereby greatly increase ignorance, in our ranks, with all its degrading consequences.

The truth is, that those Medical schools located remote from Hospitals and presenting a lower rate of Lecture fees, had their origin in, and have thus far received their support from the actual necessities of the profession; and they can be dispensed with only by obviating the necessities that gave them birth. Hence, if we would arrest the further increase of such schools as possess no adequate means for demonstrative and clinical instruction—if we would increase the relative number of those students who avail themselves of all the facilities necessary for the acquisition of

a thorough Medical education—in a word, if we would increase the learning and skill of the whole profession, and thereby add greatly to its honor and usefulness, we must bring the *terms* of attendance on such schools as have access to Hospitals and every other useful appliance for communicating Medical knowledge, pecuniarily within the reach of every intelligent and upright student of Medicine. By this means, and by this alone, can the judicious recommendations of the American Medical Association, in reference to elevating the standard of requirement, extending the College term, and insisting on demonstrative and Hospital instruction, be complied with, either by Colleges or students. To clear away the obstructions that have so long barricaded the high-ways to science—to promote universal education—to elevate man intellectually and universally, is a part of the spirit of the age in which we live. And I am happy to behold around me, on my right and on my left, those who have drunk freely and deeply of this spirit. Holding as they do, the keys of this institution, located in the great commercial metropolis of the North-West, and having unrestrained access to the only Hospital furnishing adequate means for Clinical instruction in the whole vast region north of the Ohio and west of Buffalo, they have not hesitated to open these halls to the upright and earnest inquirers after Medical knowledge, on terms *pecuniarily*, as low as the means at their command would permit. But let me presume for a moment, that they had not acted thus. Suppose they had holden fast to the ancient custom of demanding from \$75 to \$105 for Lecture fees, for every student who might desire admission here. What would have been the result? A favored few, to use the language of Dr. Beck, would doubtless have been found occupying these seats on the present occasion. But I speak advisedly when I say that a vast majority of those now before me would either be at their homes, where they would remain a year or two pouring over a few musty volumes, catching here and there an item of practice with their preceptors, and then launching forth as fully educated practitioners of the healing art, or they would give origin and support to half a dozen Medical Colleges located in the country, in the absence of Hospitals, where the cheapness of board, and the policy of giving *credit* for Lecture fees, would make them accessible to the great mass of students. With such a pecuniary barrier at the door, of what benefit would our Hospital be to the profession of the North-West, though it might contain a thousand patients? And of what avail would be all

our means for giving instruction in General, Microscopic, and Descriptive Anatomy, Physiology and Pathology, as well as every other branch of Medical science? And yet, for obeying the indications pointed out by the whole past history of our profession, by endeavoring to place every important and essential means for the most thorough and practical education of the student of medicine, *pecuniarily* within the reach of every earnest seeker after medical knowledge, we have been accused of lowering the *dignity* of the Profession and of *cheapening* the Medical Diploma. But do our accusers really mean that the *dignity* of our time-honored and noble profession depends on the amount of the fees which our Colleges assess as the tariff on medical knowledge, or that the *cost* of a Diploma is nothing more than the few dollars paid on the reception of the parchment? If so, precarious indeed, is all our dignity, and cheap are our boasted honors. According to this doctrine, we have only to hedge up the avenues to medical knowledge, cause the Colleges to double and treble their present rate of charging, so as to wholly exclude from their portals the great mass of young men seeking to qualify themselves for practitioners of the healing art, and we shall be the most *dignified* Profession on earth. The charge is too absurd to merit even a passing notice. When the Rush Medical College shall dispense with any of the necessary means for giving sound Medical instruction; when she shall lower, in any degree, the standard of requirements in relation to the mental attainments of those seeking her honors, let the Profession *protest* against her action; and him who addresses you will be the first to endorse the paper. But so long as her only crime consists in rendering all the means for a thorough, demonstrative, and practical education more accessible to the profession of the North-West, I shall glory in such crime. And not only so, but I look forward with confidence to the day not far distant, when she will not only present, as she now does, all the means and appliances for the most extended and practical education, but her Lecture term shall be extended to the full period of six months, or even more. and the small pecuniary barrier now remaining, shall be still farther removed. Increase to the utmost limit every facility for acquiring Medical knowledge on the one hand, and steadfastly elevate the standard of requirements on the other, is the motto inscribed on our banner. In the matter of education, whether Medical or otherwise, I would place the active, industrious and aspiring intellect of the son of poverty on exactly the same level with the heir of fortune. The *price* of



Medical honors to both, should be drawn, not from their pockets, but from their mental toil and the ample stores of Medical knowledge which nought but their own intellectual labor could accumulate. So noble and extended a science, and so benevolent an art as Medicine never has known and never can know such a thing as a moneyed aristocracy among its votaries."

ARTICLE II.

THE JOURNAL.

We are exceedingly sorry that we did not print enough of the first number of this volume to supply all our new subscribers. Many of them who have not received the Journal until now will understand the reason of our requiring them to begin in the middle of the volume, to be a want of back numbers.

The Intelligencer is issued regularly every other month and sent to subscribers who have paid up all arrearages at the time of sending out each number.

The rule in reference to the Intelligencer cannot be varied from as it would lead to much trouble and defeat one of the objects of its publication. We wish all of our subscribers would avail themselves of the opportunity to get two Medical papers instead of one, without any additional charge.

We shall be obliged, soon, to make advance payment the only condition on which we send the Journal to subscribers.

ARTICLE III.

MISCELLANEOUS MEDICAL INTELLIGENCE.

We hear that there are over two hundred Medical Students in attendance at the University of Michigan at Ann Arbor.

The class in Rush Medical College, at the opening of the present Session is larger than ever before. The prospect is good for a very full class, as students are coming in rapidly. A large portion of those in attendance have already taken the Hospital ticket.

There is shortly to appear a new work on Surgical Anatomy and Operative Surgery, by M. M. Bernard and Huette of Paris, with 150 original steel plates.

During the year that preceded the taking of the census, the deaths in Vermont were one to every ninety persons; in Rhode Island one to every sixty-six; in South Carolina one to every forty-eight; and in Arkansas one to every fifty-four.

A new State Hospital for the Insane is about to be erected in Massachusetts. The Hospital provisions for the Insane in that State already exceed by nearly one half those of any other State in the Union.

The Army board of Medical examiners for Surgeons in the service of the United States, will be in session in the city of New York on the 20th instant.

Paul F. Eve, the former able editor of the Southern Medical and Surgical Journal, and late Prof. of Surgery in the Medical College of Georgia and the University of Louisville, has accepted the chair of Surgery in the University of Nashville, Tenn., and become associate editor of the Nashville Medical Journal.

A new Dental College is about to open in Syracuse, New York.

Dr. Farnham, convicted of conspiracy against the Michigan Central Railroad, and sentenced to the Penitentiary is not a physician. His title arises from the fact that he has been practicing dentistry. The man whom the papers style Dr. Fitch, implicated in the same crime was a farmer and never either laid any claim to, or received the title of Doctor, until after the trial commenced. The only physician indicted was found innocent and set at liberty.

We hear from various parts of the country that Dysentery has prevailed very extensively during the past summer and early part of autumn, as it did the year preceding. It has been quite a common type of disease for three successive years in Chicago, though not marked by any considerable mortality.

The following we extract from a letter from W. H. Martin, M. D., of Rushville, Ind.—

“ We have had a great deal of Dysentery to contend with this season. Many cases were of a severe character, and strange as it may seem, we have lost but one case. We depended chiefly on Opium, and injections of Sol. Starch, Acet. Plumbi and Thebeaica tinct., assisted by hot straps, made by wringing flannel out of very hot water and then moistening the surface with Turpentine. Many of our cases were ushered in by very severe vomiting. We found nothing so prompt in arresting this condition of the stomach as small doses of the Proto Chlor. Mercury, say $\frac{1}{2}$ grain, exhibited dry and washed down with a mouthful of Elm water, every 20 or 30 minutes, according to the severity of the vomiting and until it ceased. I do not now recollect a case that resisted this treatment; and I know of but one or two that were in the least pyralized.”

Dr. Charles W. Wright of Cincinnati, Ohio, says, boiling a little Slippery Elm bark, (*Cort. Ulmus Fulva*,) in oils and fats completely prevents their becoming rancid. It gives to fresh butter the flavor of the kernel of the Hickory nut.

Dr. James B. Coleman reports a case of re-production of the Mammary gland after excision, in the New Jersey Medical Reporter.

Dr. Hachenberg of Springfield, Ohio, reports a case in the Western Lancet, in which the application of tourniquets to all the extremities near the body speedily arrested a violent hemorrhage.

OBITUARY.

Died, on the 16th of Oct., Nichols Hard, M. D., Prof. of Anatomy in the University of Iowa. Prof. Hard maintained a good character as a pleasing and instructive lecturer during his connection with the Medical schools at Laporte, Ind., and Keokuk, Iowa, and enjoyed a high reputation as a practitioner in Aurora, Ills., the place of his residence. He has been cut down in the prime of life and in the midst of his usefulness.

—On the 30th of Oct., at Oswego, Ills., of Typhoid Fever, Dr. Isaac Ives.

—At Carlinville, Ills., on the 16th of Sept., of Cholera, Dr. Edward Wright.

—Dr. Wright graduated at the last commencement of Rush Medical College. He was a young man of excellent character and gave unusual promise of attaining to eminence in his profession.

ARTICLE IV.

NOTICE TO READERS AND CORRESPONDENTS.

We have received original communications from Drs. W. Matthews and J. E. McGirr.

We have received from Messrs. Blanchard & Lea of Philadelphia, through S. C. Griggs & Co., Booksellers of Chicago, the following books for notice, which shall receive attention as early as possible: A new edition of Churchill's Midwifery; Gross on the Diseases and Injuries of the Urinary Bladder, Prostrate Gland, and the Urethra; Letters to a candid Inquirer on Animal Magnetism by Prof. W. Gregory; Beale on the Laws of Health; Walshe on the Heart and the Lungs and Bird on Urinary Deposit. We have also received the Southern Medical Reports (in exchange). The Transactions of the Medical Society of the State of Pennsylvania. The Proceedings of the Illinois State Medical Society. A Circular pamphlet to the Medical Profession by Dr. H. A. Ramsay of Raysville, Ga. The New Orleans Monthly Medical Register, No. 1., Vol. 1., for October. An extra of the Western Journal of Medicine and Surgery, being a controversial reply to Prot. Bullitt. The proceedings of the Iowa State Medical and Chirurgical Society, at its second annual meeting in May last. A small paper called the Belmont Farmer, asking how we will exchange, to which we reply for \$2 per annum in advance. We have also received our usual list of exchanges.

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RUSH MEDICAL COLLEGE, CHICAGO, ILLINOIS.

SESSION OF 1851-2.

The next annual Course of Lectures will commence on the first Monday in November, and continue sixteen weeks.

Daniel Brainard, M. D., Professor of Surgery and Clinical Surgery.

James V. Z. Blaney, M. D., Prof. of Chemistry

John McLean, M. D., Prof. of Mat. Medica, Therapeutics and Medical Jurisprudence.

Wm. B. Herrick, M. D., Prof. of Anatomy and Physiology.

John Evans, M. D., Prof. of Obstetrics and Diseases of Women and Children.

N. S. Davis, M. D., Prof. of Pathology Practice, and Clinical Medicine.

J. W. Freer, M. D., Demonstrator of Anatomy.

Clinical Lectures in the Hospital daily. Hospital and Dissecting Rooms open from October 1st to close of the Session.

The fees for a full Course of Lectures are \$35, in advance. Graduation fee, \$20; Dissecting ticket, \$5; Hospital ticket, \$5; Matriculation ticket, free.

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July 1st, 1851-2t

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Chicago, April, 1851.

MEDICAL PROFESSION AND DEALERS IN MEDICINE.

YOUR earnest attention is requested to a branch of business intimately connected with success in the treatment of disease. It is well known among *dealers*, and yet not generally known by the profession and the public, that pure and genuine medicines, particularly pure *powdered* drugs, from the first quality gums and roots, are scarcely procurable in this country, and, therefore, physicians often prescribe medicines to meet certain indications in the disease of the patient, without obtaining the desired and expected beneficial result. To enumerate the articles of adulterated medicines that are daily sold in market, would be to name almost the entire list of the *materia medica*. From the finer and more important chemicals and pharmaceutical preparations, such as Morphine, Quinine, Hydriodate Potass, Calomel, Blue Pill, &c., &c., down to the most common, and those of daily use, such as Cream Tartar, Rhubarb, Super Carb., Soda, &c., the adulterations are so adroitly made, that even the closest inspection, without analyzation, will not detect them. Quinine is often found largely adulterated (in some instances more than half) with Mannite and other substances. Blue mass and Calomel have been found much more than half adulteration. A gentleman, at one time connected with an extensive manufacturing establishment, informed us that, just before he left England, the factory turned out more than four thousand pounds of Blue Pill, containing Barytes, instead of Mercury; and it was all destined for the American market.

It seems to be somewhat difficult to determine where the blame rests for this state of things. An importing house, well known in this city, was accused, not long since, of selling impure drugs, and replying to the charge, through the New-York Express newspaper, they say :

The pretence that druggists who buy medicines of wholesale and commission merchants, to dispense them or sell them at retail, are imposed upon or misled in the purchase of inferior articles, is too unfounded to deserve any other answer than can be gathered from the very article in question. The *price* is an infallible test of the purity of all Medicines. Our customers require, and we consequently import and sell to them, Blue mass at \$1 20 per pound, and a common article at 75 or 80 cents.

We always keep and furnish the best drugs to those that will buy them. For those that require an inferior article, we keep an inferior article, which we sell for, and they buy as inferior, and at less price.

From this it would seem that the chief difficulty was the unwillingness of buyers to pay the *price* of good drugs. Buyers, in their turn, allege that the consumer, the physician, and the apothecary will not pay for pure drugs, and will buy where *cheapness*, not quality, is the standard.

While we are not able to say where the blame lies, one thing we have determined on, and that is, that it shall not be upon us.

The importance of pure chemicals is felt by every practitioner, and yet they are scarcely to be obtained in any part of the country, as they are excluded by the low price of the ordinary article. Indeed, several chemicals, of great value in the treatment of disease, have almost fallen into disuse, from the simple fact of their known impurity as furnished to the profession.

Knowing this matter to be worthy the first and earnest consideration of the practitioner, we would respectfully ask attention to the accompanying

CIRCULAR.

The recent law of Congress, in relation to adulterated Drugs, gives us the opportunity of bringing more generally to the favorable notice of Physicians and Apothecaries, our preparation of superior medicines, known as

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Our establishment having been in operation in this city for **MORE THAN HALF A CENTURY**, gives us the benefit of long experience in determining the qualities of articles, and understanding the wants of those who wish to dispense medicines of uniform strength. We wish to call particular attention to our Extra Powders, which are pulverized from selected roots and gums of the very best quality, and, when necessary, every piece is broken and examined under our own immediate supervision, and consequently possess a purity hitherto unknown in this country, and a uniformity of action upon which the physician may rely with perfect confidence.

Powdered Jalap, (which is so frequently found adulterated or utterly worthless,) when prepared by us is from the roots of the true Mexican Jalap and not from the spurious and inert roots and tops of the plant, which has been so commonly sold of late in our principal sea-ports. Our powdered Ipecac, extra, also, will be found much superior to the usual article of commerce, being made from the true Brazilian Ipecacuanha, and consisting solely of the active outer coating of the root, carefully separated from the ligneous parts, and from all other inert matters. In pulverizing Colocynth, extra, we retain only the active pulp of the apple, rejecting the seeds, which latter constitute the principal part of the weight of the fruit, and are nearly inert. Powdered Rhubarb, extra, we prepare from the best East India Rhubarb, which is culled over with great care, every root being broken to detect any unsoundness. The powdered Resin Guaiac, extra, is the pure Resin collected in tears, entirely free from the dross and dirt usual to the ordinary Guaiac of commerce.

The Scammony, also, is powdered from an article differing in appearance, and very much superior to what is usually sold for Aleppo Scammony. Blue Pill, bearing our label, will always contain one-third part of Mercury, and our Hydro-sublimed Calomel will be found to be of superior and regular quality.

Care is taken to have these "Extra Medicines" not only *pure*, but of the *best* quality procurable. When required, any of these articles can be obtained of us in their original state, as some may desire a superior article to use unpowdered. *The life* of the patient, as well as the *success* and *reputation* of the physician and apothecary, depends so much upon the prompt action of the medicines used in sickness, that we feel every confidence that any effort to furnish them with pure and superior drugs will be fully appreciated. To preserve the preparations from being injured by the air and moisture, they are generally put up in bottles and jars, containing one pound each, and also in five and ten pound canisters. They should be kept as much as possible from the light.

It will be observed that the prices of these superior articles are necessarily *less* than those of the ordinary kind, and physicians and merchants at a

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" Allspice,	" Ext. Colocynth, O'd.,	" Pepper, Cayenne, Amer.
" Aloes, Cape,	" " Licorice, Calab,	" Pepper, Black,
" " Socot,	" Fennugreek Seed,	" Peruvian Bark, Loxa,
" Asafoetida,	" Gentian Root,	" " Red,
" Antimony, Ref. Blk. Sulph.	" Ginger, Jamaica,	" " Calisaya,
" Angostura Bark,	" Golden Seal,	" Prickly Ash Bark,
" Aniseeds,	" Guaiac Resin, from Tears,	" Pink Root,
" Bayberry Bark,	" Gum Arabic, Turkey,	" Pleurisy Root,
" Belladonna,	" Gamboge,	" Rhubarb, Turkey,
" Blood Root,	" Mastich,	" " E. India,
" Bitter Root,	" Myrrh,	" Rhatany Root,
" Black Root,	" Tragacanth,	" Sarsaparilla, Para,
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" Buchu,	" Hyosciamus,	" Summer Savory,
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" Columbo,	" Marsh Rosemary,	" Sulphate Copper,
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" " Seed,	" Mezereon,	" " Potass,
" Colocynth Pulp,	" Nux Vomica,	" Uva Urai,
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Pure Chemicals, Prepared at our Laboratory.

Antimony Tartrate, Crystals,	Iodide, Lead,	Prussic Acid,
" " Pulv.	" " Crystals,	Potassa Nitras, Pure,
Ammonia, Aqua,	" Iron,	Spirits Nitri Dulo,
" " Liquor Fort,	" Pure,	Syrup Iodide Iron,
Ammoniated Alcohol,	Mercury, Bin Iodide,	Sulphuret Potassa,
" " Aromatic,	" " Crystals,	Vallet's Ferruginous Mass,
Argent Nitras,	" " Protoiodide,	Zinci Acetas,
" " Crystals,	Morphine, Sulphate,	Zinci Sulphas,
Lunar Caustic, Nos. 1, 2, 3,	" Acetate,	Zinci Chloride,
Ferri Carb, Precipitated,	Granville's Lotion,	Chloride Soda, de Labarraque,
" " Pure,	Oil Copaiva,	Confection Roses,
" Sulphas, Pure,	Oil Cubebs,	Confection Senna,
" " Exsiccated,	Collodion, 1 oz. vials,	Blue Pill, Mass,
Iodide, Arsenic,	Precipitated Chalk,	Ung Mercurial,

We are also manufacturing *Inspissated and Hydro Alcoholic Extracts*, to correspond with our other goods, and in purity and efficacy not equalled by any offered in this or any other market.

The Hydro Alcoholic Extracts are prepared by steam process, and in a vacuum, in such a manner that the valuable properties of the plant are preserved uninjured, and at the same time a consistence, color, and taste are obtained, which are not found in the vegetable extracts now in common use, and which are sufficient evidence of their superiority. Among them are

Ext. of Belladonna,	Ext. of Dandelion, Inspissated,	Ext. of Rhubarb.
" " Butternut,	" " Digitalis,	" " Sarsaparilla, Simplex,
" " Buchu,	" " Gentian, Opt.,	" " " Compound,
" " Bloodroot,	" " " Ordinary,	" " Para " Alcoholic,
" " Conium,	" " Hyosciamus,	" " Hon. " Alcoholic,
" " " Seeds,	" " Hops,	" " Stramonium,
" " " German,	" " Jalap,	" " " Seeds,
" " Chamomile,	" " Lupuline,	" " English Valerian,
" " Colocynth, Ordinary,	" " Nux Vomica,	" " Dutch, "
" " Colocynth, Opt.	" " Pinkroot,	
" " Dandelion, Alcoholic,	" " Quassia,	

It is a well-established fact, that many plants which in their native conditions are possessed of very active medicinal properties, by *cultivation* lose their peculiar characteristics, and become nearly inert. Some vegetables which belong to poisonous families of plants by cultivation are made innocuous, and are freely eaten as food, as the Potato, Parsnep, Celery, &c., &c.

To ensure to our extracts, such as *Hyosciamus*, *Belladonna*, *Cicuta*, &c., all the active therapeutical effects which they should possess, we take pains to procure the herbs from which they are prepared from places where they are indigenous to the soil: viz., from Germany, France, England, India, &c., &c.: and they are consequently much superior to extracts made from the cultivated plants of American growth.

These extracts, together with our Pure Chemicals and Extra Powders, so favorably known throughout the Southern and Western States, have received the unqualified approbation of various Medical Associations, and of Physicians and Apothecaries wherever known. Their superior efficacy in all prescriptions will be at once apparent to every one who reflects upon the difficulty oftentimes experienced in the administration of the common drugs of commerce, and the *loss of life* consequent upon the use of *inert remedies*.

☞ The great and increasing demand for Cod Liver Oil, and the difficulty of procuring the oil in its pure state, and such as we can guarantee to our customers, has induced us to send an agent to the fisheries, for the purpose of having the best article that can be offered in market. This article will also bear our label when put up in bottles, and be warranted pure, when ordered in bulk.

The value of this oil, as a remedial agent in scrofulous affections and pulmonary diseases, is no longer a question—the daily experience of medical men, in its administration, only adds to its reputation. In this, as in all articles upon which we place the guarantee of our name, we wish to be understood as offering, to the purchaser and consumer of medicine, the best of its kind that the market can afford.

TO DRUGGISTS.—IN ADDITION TO THE EXTRA MEDICINES, WE ALSO KEEP A LARGE AND WELL-ASSORTED STOCK OF THE ORDINARY DRUGS AND MEDICINES OF COMMERCE, CAREFULLY SELECTED, AND THE BEST THAT CAN BE PROCURED. OUR ESSENTIAL OILS AND OTHER LIQUIDS WE OBTAIN FROM THE MOST RELIABLE SOURCES, AND ARE SUBMITTED TO EVERY KNOWN TEST FOR IMPURITIES; AND WE AVOID PURCHASING ANY KIND OF DRUGS IN THE POWDERED STATE.

OUR ARRANGEMENTS AND FACILITIES ARE SUCH THAT WE CAN OFFER INDUCEMENTS TO DEALERS WHICH MUST INFLUENCE ALL WHO NOT ONLY LIKE TO HAVE A FAIR EQUIVALENT FOR THEIR MONEY, BUT AT THE SAME TIME TO HAVE GOODS THAT ARE WHAT THEY *purport* to be, AND SUCH AS WILL BEAR THE STRICTEST EXAMINATION AND ANALYSIS,

THE NORTH-WESTERN MEDICAL AND SURGICAL JOURNAL.

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[No. 5.

Part 1.—Original Communications.

ARTICLE I.

On the Therapeutical employment of Collodion in Erysipelas, Articular Rheumatism, Puerperal Peritonitis, etc.: By M. ROBERT LATOUR.

[We are gratified to see by the following, from the *Revue Medicale Chirurg. of Malgaigne*, which has been translated from the French, for our pages, by Mr. I. P. Lynn, Medical Student, that one at least of our transatlantic cotemporaries is disposed to award the credit of priority in projecting an important improvement, to him to whom honor is due, even though it should be to an American. This is very unlike some persons on both sides of the British Channel, and still others in America who have been disposed to claim the treatment referred to below as of their own projection, although not tried by them for months subsequent to its publication by Dr. Freer, in this Journal, after he had fully and thoroughly tested its virtues.—ED.]

An American Journal announced some months ago, that Dr. J. W. Freer, of Illinois, had used collodion with the hap-

piest results in epidemic erysipelas which prevailed during the last spring. The liquor was spread, by means of a camel-hair pencil, on all the inflamed parts, and was followed by immediate relief and a disappearance of the redness. Dr. Freer has made use of this agent, in the same manner in cases of burns and superficial inflammations, and in every instance he had remarked that the pain was alleviated, whether it acted simply by protecting the inflamed tissue from the action of the air, or, resolution was promoted under the influence of the compression exercised by the collodion.

Since the publication of these facts many French practitioners have repeated the experiments of Dr. Freer and have obtained equally favorable results. M. M. Nelaton, Aran and Lamire have been highly gratified with the effects of this local application. M. M. Aran and Valleix have employed it in variola and they have come to know that, in this affection, the collodion prevents, not only the development of the pustules when applied at the commencement of the disease, but that it arrests them in their evolution even when not applied until the second or third day of the eruptive stage.

But M. Robert Latour has gone much farther with this remedy; in a paper recently addressed to the Academy of Medicine he exposes the following results:

"Starting from logical reasoning, and not from the chances of empiricism, the employment of the impermeable plaster, directed with so great success against erysipelas and other inflammations of the surface of the body, ought not to remain confined to a circle of diseases thus limited. Confident in the value of the principle which had suggested to me such a therapeutic innovation, I have promptly extended its application to other well marked inflammations; and some months since I informed the Academy of the remarkable facility with which I have subdued by this medication inflammatory action, whether of gout or of acute articular rheumatism. Its success since

that time has not diminished; many cases of articular rheumatism and of gout have presented themselves in my practice; and I say it with a just sentiment of pride, that no agent has obtained, by its therapeutic results, a more brilliant sanction. A lapse of time of three days at the most, ordinarily of a single day, has invariably sufficed to subdue the disease; and what will secure one against fear of the consequences of so rapid a triumph is the constantly simultaneous disappearance of the general symptoms of the affection. Whatever idea we may have as to the cause of these results, it is necessary to humble ourselves before the fact, *that in no instance, upon being removed, has this local inflammation left behind it any of the general phenomena of the disease.* Certainly this is enough to establish the perfectly innocuous character of such a practice, which should place it in the first rank of therapeutical agents in the affections which I now come to describe."

We attach a little less importance than the author, to this *logical reasoning*, and, therefore, we pass over some of these reasonings. We shall find sufficient of them in the recital of facts which follow. The first of which is a case of puerperal peritonitis :

"Miss X, a strong, healthy young woman of 22 years, after having been exposed to cold for a considerable length of time, was seized with a very severe chill which lasted an hour and to which succeeded a burning fever, great anxiety, cephalalgia and pain in the abdomen. The pain, increasing and extending itself on the next day had become general and so acute that she could not endure the slightest touch. The abdomen was tumefied, the respiration humid, fever high, with extreme restlessness, and to all these symptoms was added vomiting which became more and more frequent. The development of a peritonitis here could not be doubted, and the indication was plain, according to orthodox rules, to proceed to the extraction of large quantities of blood. Such a step would certainly

have been legitimate, and has been so often proved as to place it above all imputation. But, true to the theory which I have developed touching the philosophy of inflammation, I conceived the idea of removing the disease by animal heat, and without drawing a drop of blood, I coated the entire abdomen with collodion. Here, I confess, I experience some embarrassment in stating the results obtained. To say that the vomiting was immediately arrested, that in two hour's time calmness had taken the place of extreme anxiety, that the pain was alleviated; to say that the skin in less than a day had recovered its natural moisture and coolness, and the pulse its normal condition, from having been at 112; to say, in short, that less than twenty-four hours were sufficient to subdue this alarming inflammation, is sufficient to destroy any incredulity that may exist on the part of the schools in regard to my philosophy of the disease and the indications of treatment."

This is not the only time that the author has employed this agent in this affection, and in every case, he says it has produced the happiest effects. It is well known, however, that if the disease is already complicated with effusions and adhesions it will not immediately remove these disorders; but even then M. Latour affirms that it arrests the progress of the disease.

"The following will show the advantage which I derived in the case of a lady, aged forty-five years, of enfeebled health, and who, while laboring under a chronic ovaritis of the right side, was attacked with a general peritonitis. The serious nature of which was evident by extreme pain throughout the abdomen, violent fever, anxiety and vomiting, which, having commenced on the third day after the attack, on the next day became excessively frequent, at which time my services were solicited. At this period the abdomen was greatly tumified in spite of the great quantity of blood

extracted, by the application of twenty leeches, the night previous; and the patient, in extreme agitation, most imploringly demanded relief. She obtained it. The bleeding from the leech-bites was immediately stopped and collodion applied over the whole surface of the abdomen. This application sufficed, in a few hours, to arrest the vomiting and moderate the pain, and if convalescence was not evidently established the same day the *life*, at least, *was saved*, which, but a short time before, was so threatened and already even compromised. Some days were necessary to restore her to her former condition, which was but a state of disease and suffering, occasioned by the chronic ovaritis, and which was removed only by long continued treatment."

We wait, for the present, the exposition of facts. They should be repeated and submitted to rigorous verification; this first being done, it will then be time to examine and appreciate the theory which has furnished the author a point of departure.

ARTICLE II.

Notes of a Rattle-Snake Bite admitted into the Illinois General Hospital of the Lakes. By JOHN E. MCGIRR, M. D., L. L. D., one of the Surgeons to the Hospital, and Prof. of Chemistry and Physiology in the University of the Lake.

Edward Donelly, laborer, was brought from the country twelve miles distant, to-day, August 13th, into the Hospital.

History.—He was bitten by a rattle-snake on the second phalanx of the index finger, right hand, yesterday, 12th inst., about 11 o'clock, A. M., while engaged in binding oats in the harvest field. Immediately after being bitten he put the fin-

ger into his mouth with the expectation of being able to suck out the poison. Donelly killed the snake, which had ten rattles upon it, and cutting it in two, he applied the cut surface of the tail end to the part bitten and walked with it thus applied, about a mile, to the first house. Here he had spts. ammonia, indigo, &c., applied to it. He then became insensible and the first thing he remembers after this was vomiting blood. At the same time that he vomited blood, the bitten part began to bleed; also, an old ulcer on the left leg, which had been healed except a space about the size of a dime. The blood vomited came from the mouth; he had swallowed it. The mouth, finger, and leg bled simultaneously and continuously.

Violent pain soon set in all over his body; this continued until about one o'clock at night when he got about two hour's sleep. The pain then returned and continued until next day, when dizziness, faintness, and partial loss of sight, occurred. The bleeding had never ceased, and, when he was brought into the Hospital, all the clothes about him were saturated with blood.

Present Appearance.—The finger livid, swollen, and streaming blood from the bitten part, around which the cuticle had separated, as if blistered. The right hand and arm were very much swollen. Spots of ecchymosis varying from the size of a pea to that of a shilling, covered the whole body; some of these were raised and hard to the touch. Patches of ecchymosis were on the arm near the axilla. Pulse full and quick. Tongue has a whitish fur, thick along the centre. Cadaverous smell from the mouth. Respiration labored. Whole system evidently under the influence of the poison.

Physical character of the blood examined by Mr. Johnson, *Interne*, was as follows: Blood does not coagulate, color deeper than natural; under a microscope of 400 diameters, corpuscles sphericle, unnatural number of nuclei; not a trace of fibrine. Blood presents much the same appearance as healthy blood acted upon by acetic acid.

Treatment.—Professor Herrick, one of the Surgeons to the Hospital, kindly prescribed at once for the case in my absence. He ordered at one o'clock P. M., the following :

R. Potass. Iodide gr. V. To be given every three hours.

R. Chloride Sodium gr. X V, to alternate.

He directed mattico to be applied to the bleeding finger and to the bleeding ulcer. I came in time to apply the mattico. It was bandaged down to the bleeding surfaces ; the fingers, hand and arm were also bandaged, and acetate plumbi gr. IV, pulv. opii gr. I, directed to be given every hour should the bleeding recur.

At seven o'clock P. M., the bleeding had not recurred from either finger or ulcer. Prescription of Professor Herrick continued.

14th. Did well till about one o'clock to-day, when the bleeding began again from the finger and ulcer and continued till two o'clock P. M. One powder of acetate of lead and opium, as above, given. Bleeding returned at five P. M. The bleeding surfaces dressed and fresh mattico applied which arrested the discharge. The same foetid, or cadaverous smell of the mouth continues, root of the tongue stiff and sore, occasional starts of pain in the finger, pulse 84, hard ; violent pain in the hand and arm during the evening.

R. Carb ammonia gr. iij ; camphor gr. iij, every two hours.

16th. About 4 o'clock this morning the breathing became somewhat oppressed. Pulse, 96. Ecchymosis on the front part of the arm extends in one continuous patch to the axilla. The cuticle on the back of the finger all puckered as if seared. It is raised and hardened. The back of the hand is distended with fluid. The examination, of the blood under the microscope shows the gradual restoration of the fibrine. If astringents be given to arrest the discharge of blood from the mucous membrane of the mouth, the finger bleeds—one or other bleeds slightly without ceasing.

R. ol terebinthina gtt XXV in emulsion every six hours until the bleeding is arrested.

The spots of ecchymosis, before spoken of, begin to fade from the centre towards the circumference, restoring the natural color. The blood drawn the first day of the patient's admission remains in the vial dark and liquid with the same cadaverous smell precisely as that given from the mouth, which arose from the blood constantly discharging from it.

17th. Much improved. The bleeding from the mouth stopped altogether, and it is very slight from the finger. Ecchymosis growing fainter, although a large patch has appeared upon the back of the left arm above the elbow. Continue ol. terebinthina.

18th. Not quite so well to-day; last night had a very severe chill, followed by fever and sweating. Continue former prescription and add

R. Quinia gr. V.

19th. R. Quinia sulph. gr. iij. Carb. ferri. gr. iij.

One powder to be given every four hours with wine. Has had no return of chilliness; bleeding altogether arrested.

Nothing worthy of note further occurred to arrest speedy recovery. The first phalanx sloughed away and considerable sloughing took place on the front of the second, which exposed a portion of the bone. This became carious and was removed when the finger healed up entirely.

On the 26th of August the man left the Hospital.

ARTICLE III.

On the uses of Tobacco in certain Inflammatory Diseases. By
WM. MATTHEWS, M. D., Nicholsonville, Indiana.

Direct depletion, by the lancet, in the treatment of the diseases of the West, is almost totally neglected by our physicians. Few persons, however robust they may appear, when attacked by inflammatory disease, bear direct depletion to the same extent in the Mississippi Valley that they would, were they located upon the Eastern shores of this great continent. Hence it is, that the most successful practitioners of the West, in the remedial management of inflammatory affections, in conjunction with a moderately depletory mode of treatment, use roborant and tonic medicines, together with a pretty liberal diet. Our atmosphere, we have abundant reason for believing, is never wholly free from the depressing agency of the so called malaria, supposed to be diffused in the air by all low and marshy districts, when long continued heat is brought to bear upon the surface of the earth. The modifying influence of this agent, over pathological conditions, it is, therefore, believed, calls for a corresponding modification in the application of therapeutical remedies. And as has just been stated the experience of practical men of the West, bears us out in such an inference.

Even in pneumonic and peritoneal fevers, we of the Mississippi Valley are taught, and some of us by sad experience, too, to treat by cautious abstractions of the blood, by opiate and mercurial medicines, vesication, and last, though not least, by the liberal and timely employment of quinia, and nutritious soups. I appeal to my medical brethren to bear me out

in this statement. I have repeatedly used quinia, under such circumstances, with results the most satisfactory, and I doubt not but that others have done the same thing.

Now, I believe, from considerable experience, and, also, from the testimony of several highly respectable practitioners of my acquaintance, that we possess an article of the *materia medica* which may be profitably substituted for direct depletion by the lancet, in nine-tenths of the acute inflammatory diseases of our Western country. That article is the common TOBACCO, to be found in the pockets and mouths of a majority of our physicians, at all times. I do not pretend to say that it should take the place of the lancet in *every* case, but I know that in a vast majority of instances it may be profitably substituted for that instrument. As an arterial sedative in the management of all forms of disease whose focus of irritation, so to speak, is the mucous tissue of the stomach and bowels, it is, without doubt, very greatly to be preferred to the preparations of antimony, which have a well known tendency while they control the momentum of the blood, to aggravate the disturbed condition of these structures. It will, when efficiently employed in such cases, I am well satisfied, fulfill the indication of controlling the febrile movements without, at the same time, harrowing up those delicate membranes upon the physiology of which the welfare of our patients so often depends.

In certain specific inflammations, for example, in which typhoid symptoms are apt to be very early developed, tobacco is capable of exerting an almost magical influence. This is particularly true respecting erysipelas—a disease which for many year's past has been mowing down its thousands throughout the West, and the nature of which is specific inflammation of the throat, with low typhoid complications. In instances of this kind the judicious employment of tobacco has been known to break down the activity of the disease, and

leave the patient in a debilitated, though convalescing condition, in the course of a few hours. So salutary are its effects in such cases, that a physician of my acquaintance, who had used it much, remarked to me, that he felt as confident he would cure a case of erysipelas with tobacco, as I did that I would relieve a case of intermittent fever, for which I had just made a prescription of a scruple of quinine. And another said to me, after several years of experience with the article, that it was capable of curing all curable cases.

From a few trials, which I have made with the present article in acute epidemic dysentery, I am persuaded that it is capable of doing much good in its earliest stages. Indeed, I am strongly inclined to the opinion, that erysipelas and dysentery, as these affections have recently appeared in the West, are in their nature closely allied to each other. In the former, the inflammation is principally confined to the fauces, while, in the latter, the large intestine is the structure upon which the intensity of the disease falls. In both, however, we have the same typhoid tendency, and it has repeatedly been the case, that the glands about the neck and arm-pits have suffered inflammation and suppuration, as well in dysentery as in erysipelas. But be this as it may, the chief indication in the remedial management of flux, is to subdue symptomatic fever. If this can be done, and the strength of the patient at the same time can be preserved, little danger need be apprehended. Copious abstraction of blood, it has been supposed, is capable of subduing such arterial excitement, and such is undoubtedly true. But suppose this indication is fulfilled by blood-letting, we need not be surprized if, through the exhausting nature of the disease, and the depressing agency of the remedy, the patient falls into a true typhoid fever, from which he dies, or recovers only after weeks of fearful debility.

Now no such fears need be entertained as to the employment of tobacco. Its depressing effects may be removed at

pleasure, and the vital forces allowed to resume their healthy action. The nutrition of the blood is in no wise impaired, and convalescence is, therefore, apt to be rapid and perfect. Nor need there be any fears entertained about carrying the remedy too far. I think we have an unerring guide as to this, and it now remains only to give :

The mode of its application.—This is exceedingly simple. The leaves are moistened and spread smoothly out several thicknesses over the abdomen, or throat, or the extremities are covered, or all these parts may be covered at one and the same time. From time to time they should be moistened or sprinkled with warm water, and kept thus applied until the specific effects of the tobacco are obtained. In some instances this may be procured in the course of a few hours, but in others, from twelve to twenty-four hours will be required.

The indications for removing the tobacco are the following : The pulse becomes less frequent and quick, the skin soft, slight narcotism, nausea, vomiting, and not unfrequently, purging. Along with the change thus wrought upon the heart and nerves, the local inflammation is found, in many instances, to have almost entirely given way.

After the removal of the leaves, should re-action take place it may be proper to repeat their application, just as we would repeat venesection under like circumstances.

The decoction may be used, instead of the tobacco in substance, by means of flannel strips. Or, in cases of emergency, it may be employed in the form of enema, observing proper precaution to not prostrate the vital forces too much.

I do not claim the foregoing remarks to be wholly original with me, but presume they will be new to many practitioners. And it is hoped such may profit by them.

ARTICLE IV.

Cerebro-Arachnitis. By J. B. NASH, M. D., of Dixon, Ill.

I noticed in the November number of the North-Western Medical and Surgical Journal an article on cerebro-arachnitis, which was read before the Central Medical Society, of Illinois, by Dr. James Smick.

I was much pleased with the able manner in which he described the disease. It corresponded almost exactly with the disease as it has prevailed in this vicinity. But as I have been pursuing a somewhat different course from that described by Dr. S. and other physicians who have written upon the disease, I will give an account of my treatment and its results.

I will say nothing about the symptoms as Dr. S. has given them as correctly and much more ably than I could.

The disease broke out here in the winter of 1840, and assumed a very malignant form. The first case I was called to see I found in articulo mortis twenty-four hours after the attack. The next two cases I saw twelve hours after they were attacked; I bled, used external applications, gave cathartics, but could get no operation from them. They died in nine and twelve hours. In company with Drs. Everett and Tiedman we made post-mortem examinations in the last two cases. We found unequivocal signs of congestion of the brain and inflammation of its meninges.

The course I then adopted was to bring about re-action in the first place, and after it was established, to use the most vigorous antiphlogistic treatment, by which course I saved the most of my patients.

In 1841, the disease again made its appearance. In the first case I could only bring on a partial re-action. The patient soon died. The next case was a little girl. She was attacked with the usual symptoms. Her stomach was so irritable that she could keep no medicine upon it. I was afraid to give an emetic, as I had been taught that in all diseases of the brain and determinations of blood to the head, emetics were inadmissible. I, however, ventured to give a light one of ipecac, which operated gently, relieving the congestion of the brain and irritation of the stomach. I then enquired whether it was a fact or not, that emetics were inadmissible in determinations of blood to the head, and concluded they might be, when inflammation had actually taken place, but previous to that, or while congestion only existed, I thought they might prove valuable by equalizing the circulation. In my next case I gave a strong antimonial emetic, which at once relieved the patient, a gentle laxative the ensuing day completing the treatment. After this I treated about thirty cases during the winter, and have had the care of more or less of the disease almost every year since, which I have treated upon the same plan. I have not lost any cases during this time that I have seen before inflammation had taken place.

In some cases of strong plethoric persons, I have bled previously to giving the emetic, if re-action was fully established before I saw them. In some, after giving the emetic, I have found it necessary to give an active cathartic, (such as a dose of calomel followed with salts and senna,) and sometimes I have used diaphoretics for a day or two.

If on the next day or the day after I discover any symptoms of another exacerbation (which is always light after the above treatment,) I give quinine.

I never wait for re-action to take place before giving the emetic, but the sooner it is given, after the attack, the better; as I have found nothing that so speedily relieves congestion and restores the circulation to its normal standard.

I always leave an opiate to be given, if the emetic acts upon the bowels, for fear the antimony might produce intestinal irritation which invariably retards the recovery of the patient.

Part 2—Reviews and Notices of New Works.

ARTICLE I.

Elements of General and Pathological Anatomy ; Presenting a view of the present state of Knowledge in these Branches of Science. By DAVID CRAIGIE, M. D., F. R. S. E., Fellow of the Royal College of Physicians, of Edinburg, &c. Second Edition, enlarged, revised, and improved, ps. 1072 octavo. Philadelphia : Lindsay & Blakiston, 1851, (from the Publishers through S. C. Griggs & Co., Chicago.)

This is a beautiful book so far as the style of its publication is concerned. We were a little surprised that so important and so elegant an Edinburg work should have been published in this country without an American editor's name being attached, as it would have given some aspiring young man a good opportunity for that kind of notoriety which many of our Eastern friends have attained ; not a few of whom may be found in the city where this book is published. But we find the edition is got up under the supervision of its own author which is certainly far better. We have very little faith in the utility or propriety of these literary God-fathers. We would much rather a work should be suffered to stand upon its own merits, and that the editors decline the distinction of authorship until they are able to produce works of their own composition. True, this might forever blot some names off of the scroll of fame, and yet we are not sure but they would be better off.

On looking at the last page of the work we see, by the imprint, that the printing has been done in Scotland, which shows the enterprise of the distinguished publishers, if it does not

argue very strongly their support of home manufactures. The typography does no discredit to either Edinburg or the publishers.

As to the merits of the work we are unable to speak further than to say that its subjects are systematically arranged, for we have just received the copy.

We will endeavor to speak of it more fully hereafter; in the mean time we advise our readers to purchase a copy, read and judge for themselves, and we return the publishers our thanks.

ARTICLE II.

Surgical Anatomy. By JOSEPH MECLAISE, Surgeon; with colored plates, parts 4 and 5. Philadelphia: Blanchard & Lea, 1851. (From the Publishers through S. C. Griggs & Co., Chicago.)

These parts close the work, which has been issued in numbers by the American Publishers. The two parts treat of the iliac, femoral, and perinæal regions and of the inferior extremities.

As a work of utility and art of its kind we can, without hesitation, speak of it in terms of the highest praise. The surgeon will find it one of the most useful and elegant works that he can obtain for his library, and can purchase it for what we should think a very moderate price, being but nine dollars for the work complete.

ARTICLE III.

Ranking's Half Yearly Abstract of the Medical Sciences for July, 1851. (From the American Publishers through S. C. Griggs & Co., Chicago.)

This work which we have had occasion before to notice as one of the best medical periodicals of the day, fully sustains its high reputation in the present number.

It is re-published in this country by Lindsay & Blakiston, Philadelphia, at the low price of one dollar and fifty cents per annum; or to mail subscribers with the postage pre-paid at two dollars.

ARTICLE IV.

Elements of Physiology including Physiological Anatomy. By WILLIAM B. CARPENTER, M. D., F. R. S., &c. Second American from a new and revised London edition, with one hundred and ninety illustrations; ps. 566. Philadelphia: Blanchard & Lea, 1851. (From the Publishers through S. C. Griggs & Co.)

The general reputation of this work is such that it is only necessary for us to mention its appearance in a new and improved edition to secure it the attention that it deserves. Although we might join issue with the author on several points of physiological doctrine had we time to review them, we must, for the present, let this brief notice suffice.

ARTICLE V.

The Pharmacopœia of the United States of America. By authority of the National Medical Convention held at Washington, A. D. 1850. Philadelphia : Lippincott, Grambo & Co., 1851.

We have already published a list of most of the new preparations that have been introduced into this edition of the work. The style in which it is published is remarkably good, its classification of preparations is plain, and its language is remarkably concise.

ARTICLE VI.

The Laws of Health, in relation to the Mind and Body. By LIONEL JOHN BEALE, M. R. C. S. (From the Publishers through S. C. Griggs & Co.)

This work is not only designed for the physician but for the general reader. It is got up in a clear and easy style, so that the reader, although not a medical man, can easily understand it. Works of this kind should not be designed exclusively for the medical profession, but should be got up in such a manner as will interest and instruct the general reader.

There is too great an indifference about this subject in the public mind generally.

Physiology and the laws of health, should be more studied than they are, by the people. The more the public are informed on these subjects, the less will they suffer from disease and death. The laws of health not only apply to individuals but to whole communities as bodies. In consequence of practising in accordance with the laws of health many diseases which formerly carried off individuals in much larger numbers do not now take them off in a greater proportion than 30 or 40 per cent.

This work gives some of the general principles of physiology, especially such as are more necessary for the hygienist to understand. By this means the way is made clear so that any person who reads may understand the reasons given for carrying out certain practices for the purpose of preserving health. It is not confined to the health of the body, but is extended to that of the mind. Its rules are not confined to any period of life, but extends from infancy to old age. After speaking of the health of children, he goes on then, to speak of that of the adult. We will here give a few extracts, for the purpose of showing the character of the work :

“It is an important law of health, that the stomach should have an interval of repose between the various meals. In the adult, as a general rule, about six hours should intervene. Man is omnivorous—meat, corn, fruit, and vegetables being all agreeable to his taste ; but some men in their habit of feeding approach *nearer to the carnivorous*, and others to the *gramnivorous* animals. We occasionally meet with a person, who, like the *carnivora*, exists almost entirely on a single meal, principally of flesh ; others we find who are always taking small quantities of food, of which the least portion is animal. The medium is the general law : three meals in a day ; two of vegetable food, and one of animal, at intervals of about six hours, appears by the common consent of mankind to be the wisest general rule. Many enjoy health on two hearty meat meals, at an interval of eight or ten hours—some taking a biscuit or a slight refreshment between, while others require

no intervening assistance. The quantity of food should be regulated by the age, the amount of exercise, and the wear and tear of the body. One who is taking active exercise all day in the open air of the country, who expends a large quantity of animal heat and muscular power, requires more fuel or food than one who creeps about all day in a city; and the latter requires more than another, who spends the whole day in an office, a shop, or a counting-house. The fresh air of the country appears to carry away from our lungs and skin more of those excretions which should pass off from their surfaces than the loaded air of the city, and we therefore feel more appetite in the one than in the other. If, contrary to the dictates of nature, the denizens of a town supply the stomach with as much nutriment as they would require in the freer atmosphere of the country, the consequence will be indigestion and bad health. Nature tells us how to regulate the supply to the demand, and it would be wise to follow her counsels."

* * * * *

"We are all acquainted with a few instances where the intellectual faculties and the moral powers have continued to improve as long as life has lasted—long after the body has begun to decay. While every part of the body, every system, muscular, respiratory, digestive, &c., has suffered from gradual decay, the mind, so far from being equally impaired, has improved. After the age of fifty the powers of the body have visibly declined, and towards sixty there are very few who are capable of any thing like the exertions of former years. But many of the noblest efforts of the human mind have been produced after fifty. Bacon published his "Novum Organon" at fifty-nine; Newton was seventy-three when he solved the problem of the trajectories in one evening; Milton was fifty-nine when "Paradise Lost" was published; Locke published his great work at fifty-eight; Johnson wrote "Rasselas" at fifty, his "Lives of the Poets" at sixty-six, and his "Conversations," preserved by Boswell, show how active and unimpaired his mind was at seventy; Wordsworth's mind does not appear to have been materially impaired at eighty. At the very moment I am now writing (March, 1851,) the advice of the Duke of Wellington, past four-score, has been called for by her Majesty, in great perplexity with the difficulty of forming an administration. A better example could

not be adduced, because his Grace is precisely an instance of the retention of mental power long after bodily decay, by the active employment of his mind at every period of a long and well-spent life. There are few who have braved the trials of a long life more worthily, and he may be cited as a glorious picture of old age."

* * * *

"We often charge Providence with infliction of calamities which are the result of our own folly;—probably, when our knowledge is more extended, we shall discover that many of the evils, physical and moral, which still afflict mankind, advanced as we are in civilization, may be altogether prevented. The plague was considered by our forefathers as a direct visitation for the punishment of the sins of a wicked generation, but more knowledge has shown that it was an indirect punishment for the neglect of natural laws, calculated to teach men that dirt, impure air, bad food, acting on a very crowded population, which retained about its habitations offal and filth of every description, will engender malignant diseases. Concentrate again the same causes, the same effects will result. Better-ventilated habitations, more space for the population, and the partial removal of nuisances, has freed London from the scourge of plague. More extended knowledge will free it from other nuisances and other diseases; there is still room for much improvement. The more rapid removal of the accumulation of dirt in the public streets, of all slaughter-houses in yards and cellars, the banishment of gas-works, and all factories generating noxious gases, to a greater distance, and the final abandonment of the custom of burying the dead under our windows, are among the improvements which we may fairly hope to see added to the civilization of the present generation.

* * * *

"Tables obtained from registration of deaths show the greater mortality at all ages among the poor and working classes, than among the rich and easier classes of society. Intemperance has no doubt much to do with the result, but ignorance, and inattention to the general laws of health, engender disease and shorten life in a larger proportion among the ill-informed than among the better-instructed classes of society. What must be the state of atmosphere in a room ten or twelve feet square, occupied day and night by two adults and four or

five children? We need look no farther for causes of bad health than this, which is almost universal among the working classes in towns. The pigs and oxen of our grumbling agriculturists are better housed than thousands of men, women and children. It is not that the poor pay less rent than other classes. In proportion to their incomes they pay more—as they do, in fact, for every thing they consume, for they not only pay a higher price, but they get an inferior article. There is no better field for the benevolent than the formation of model lodging-houses for our industrious population.

I think we may fairly conclude that bad health is more commonly the result of the gradual operation of improper food, insufficient fresh air and exercise, and want of cleanliness to the skin, than the vicissitudes of the weather, or other accidental causes. Without the previous process of deterioration of health, consequent on our own inattention and folly, inclemency of weather, &c., would have much less influence. Disease is much more frequently the result of our own conduct than the direct infliction of Providence, the necessary result of climate, or other external influence."

In these last remarks there is much truth. If proper attention were paid to the rules of health there would be much less disease than at present. If we should live in accordance with the laws of health, there would be less reason to complain of the distribution of afflictions by Divine Providence. By a proper regulation, and attendance to such laws many who now die in youth, might live and enjoy themselves to a good old age.

For a small work, we consider this to be one of the best of its kind, but we think it would have been better, had it entered a little more into the field of physiology. There are many points of interest which are left untouched, and a knowledge of which would have been of more interest to the reader. But as it is, it is a fair work, and one that will do much good, if properly read.

It appears that works of this character are rather limited, there being but very few good ones of the kind in the English

language. The importance of the subject is not sufficiently appreciated, but we are glad that there are signs of an interest being aroused in this direction, and hope that it will increase until physiology and the laws of health, are well understood by all.

J. McL.

ARTICLE VII.

Urinary Deposits : their Diagnosis, Pathology, and Therapeutical Indications. By GOLDING BIRD, A. M., M. D., F. R. S., F. L. S. Second American, from the third revised and enlarged London edition. Philadelphia : Blanchard & Lea, 1851. (From the Publishers through S. C. Griggs & Co.)

This, the third edition, is amended and improved by additions which contain the most important discoveries in this department of science. The subject upon which this treats is of much importance to the practicing physician ; but it has been, and is yet too much neglected. A proper knowledge of the subject gives much importance in regard to the pathology, prognosis, and treatment of certain diseases. Many obscure points in the pathology of disease, are rendered much more clear by the information given in this little work. The subject is one which should attract the attention of the medical profession, and we are happy that there are signs of the medical mind being turned in this direction, and hope that his little volume will be read and consulted by all who practice in the profession.

J. McL.

ARTICLE VIII.

The Microscopist or a Complete Manual on the use of the Microscope for Physicians, Students, and all lovers of Natural Science. With illustrations by JOSEPH H. WYTHES, M. D. Pages 191 duodecimo. Philadelphia: Lindsay & Blakiston, 1851. (From the Publishers through S. C. Griggs & Company.)

As the revelations made by the aid that the microscope has given, by which much of the imperfection of the sense of sight is removed, have opened a new field of study and investigation to the physician as well as the naturalist, the little work before us may be considered quite opportune in its advent. It gives plain and practical lessons in the use of the instrument by which the student may qualify himself to carry on microscopic examinations with facility and satisfaction.

The brief accounts of the cell doctrine of physiology, of the examination of morbid structures and of urinary deposits will be found quite interesting to those physicians who have not seen and studied more elaborate works, upon these subjects. In fact even to those who have not the instrument it may be a very interesting work as it enables them to understand the structure of the microscope and many of the uses that it subserves to the cause of science.

ARTICLE IX.

Hints to the People upon the Profession of Medicine. By WM. MAXWELL WOOD, M. D., Surgeon U. S. Navy, &c. Buffalo: George H. Derby and Co. (From the Publishers through Hewson & Denison, Chicago.)

This is a well written, sound and clear argument in favor of a better appreciation of medical science and more respect for medical men on the part of the public.

As it is furnished in quantities at a low price (\$1.50 per dozen) it might not be a waste of means for physicians and societies to purchase and circulate it in their several communities.

ARTICLE X.

Operative Surgery based on Normal and Pathological Anatomy. By J. F. MALGAIGNE, Professor Agrégé de la Faculté de Médecine de Paris, &c., &c. Translated from the French by FREDERICK BRITTON, A. B., M. D., M. R. C. S. L. *Securite, Simplicité, Celerite.* Illustrated by Wood Engravings, from designs by Dr. WESTMACOTT. Philadelphia: Blanchard & Lea, 1851. (From the Publishers through J. Keen, Jr. & Brother, Chicago.)

This is one of the most practical and complete manuals upon the subject that is to be found in the English language.

It not only gives directions for the performance of the capital operations, which few are ever called upon to perform, in

a clear and workman-like manner ; but briefly and concisely treats of the small operations that are frequently so embarrassing to the young surgeon, on account of deficiency in his education, and which every medical practitioner in this country is continually being required to perform.

The following from the English translator's notice sets forth the propriety of its introduction into Great Britain which we suppose will be regarded as satisfactory in reference to its republication in this country.

"Considering the widely-diffused reputation of M. Malgaigne—the acknowledged high character and practical utility of his *Manuel de Medecine Operatoire*, which has already reached a fourth edition in the original, and has been translated into no less than five continental languages—the frequent references to, and extracts from it, as a classical work, by the most eminent surgical writers of this country—and especially taking into account the information as to the practice of foreign schools—it has excited some surprise that no translation of so celebrated a book has yet been offered to the British Profession.

During twelve months' study in the schools and hospitals of Paris, in which the original is used as the standard work by students of all nations, the translator was able to appreciate its great value, not only as a companion and guide in the dissecting and operative theaters, but also as a complete book of reference for all that relates to operative surgery.

Whilst in France, and since his return, he has heard many of his professional acquaintance regret their inability to read it satisfactorily in the original ; and believing that, notwithstanding the admirable treatises which have appeared during the last few years, there is still room for so comprehensive a book, he has, after obtaining the sanction of the author, determined to bring it more immediately within the reach of the British Surgeon."

To show the views of the author in reference to the rivalry between British and Continental Surgeons for the palm of superiority, and, also, as showing the scope and design of the work before us, we make the following extract from the author's preface :

"Lastly, the *Medecine Operatoire* of modern times has better profited by the sources of light and progress offered to it. English surgery, moulded on pathological anatomy and experiment, after the example and lessons of J. Hunter, for a moment surpassed us; and so vigorous was the impulse it received, that it is still almost our equal. We have not, however, delayed to follow it; and *Medecine Operatoire* in France has opened to itself two additional paths; first, the historical, the only way of appreciating the real state of the science, and finding out its weak points; secondly, surgical anatomy, the sole means of giving to the knife security in its progress, and to the proceeding clearness of description. Sebatier was the first to guide us to the study of history; but he has been far surpassed by M. Velpeau. The great surgeons, also, who first elucidated by exact anatomical details the difficulties of certain operations, Boyer and Dupuytren—to speak of those only who are dead—have been happily succeeded by M. Lisfranc, who has, in fact, given to the art a new physiogony by precision of detail, and exactitude of description.

Perhaps, however, in the real progress made in our time by *Medecine Operatoire*, its end has been overlooked: whilst practicing its operations on the dead body, perhaps the living patient has been too much forgotten; whilst perfecting the operations, all that should precede and follow them—the indications and results—have been left in the shade. In the first editions of this book, I had stated, "A treatise on operative surgery, to satisfy all the requirements of the age, should, for each operation,—first discuss the indications, exactly study the surgical anatomy, review all the proceedings, and, after mature examination and judicious choice of the best, describe the manipulation with all the necessary detail;—then point out the different methods of dressing; set forth the statistical account of successes and failures; and, lastly, seek in post-mortem appearances the causes of death in fatal cases, in order to point out their remedy." But at the present day even these conditions no longer suffice. Experience teaches us daily that we must not regard as completely cured all those who apparently recover; and that it is extremely necessary to keep an exact account of the relapses, both in relation to the nature of the disease, and according to the proceeding adopted. This is not all; for, after the most positive cure, it is still interesting to study the consequences of each operation,

as well as the organs and functions, as on the general vitality of the patient. Any observation that does not extend so far should be considered incomplete. This is almost a new field offering itself to the surgeons of the present day.

As to myself, so extensive a scheme could not be comprised in the narrow limits of a manual, and discussions were almost forbidden; it sufficed for me to give the results. I have consequently been obliged, much to my regret, to lay aside almost entirely the historical portion; I have only touched on the question of indications, in the appreciation of the different methods applicable to the same disease; lastly, the description of the dressing, the study of the accidents and of the consecutive treatment, would have drawn me farther than the limits of the work allowed.

The two principal parts of the art which have been treated of with especial care are, the surgical anatomy and the operative manipulation; and, in these respects, perhaps, this work has been made more complete than the treatises, even of much larger size, that preceded it. To this cause it undoubtedly owes a success much greater than the author dared to expect. Notwithstanding a pirated Belgian edition, and five translations, it has taken but eight years to exhaust the first three editions, consisting of a great number of volumes; and though I intended it for students only, I have had the satisfaction of seeing it in the hands of masters. Moreover, it has had the honor of being frequently cited, and even translated or literally transcribed, in the new edition of Samuel Cooper, and in the excellent articles with which M. A. Bérard has enriched the *Dictionnaire de Medecine*.

ARTICLE XL

The Pocket Formulary and Synopsis of the British and Foreign Pharmacopæias : Comprising Standard and Approved Formula for the preparations and compounds employed in medical practice. By HENRY BEASLEY. First American, from the last London edition, corrected, improved and enlarged. Pages 443, 12 mo. Philadelphia: Lindsay & Blakiston, 1852. (From the Publishers through S. C. Griggs & Co.)

This is an exceedingly convenient work for the physician and apothecary. In country practice, such as a large majority of our readers are engaged in, where the practitioner is not only physician, surgeon and accoucheur, but his own apothecary into the bargain, we should think this little work would be very convenient and useful. The title page quoted above, gives a very good idea of the character of the work, hence further comment on our part is unnecessary.

Finding no American editor to this, as well as several other European works lately re-published in this country, we begin to conclude that editing European works is going out of fashion and we very heartily bid the fashion farewell.

ARTICLE XII.

Intermarriage or the mode in which, and the causes why, Beauty, Health and Intellect, result from certain unions, and Deformity, Disease and Insanity from others : demonstrated by delineations of the structure and forms, and description of the functions and capacities, which each parent, in every pair, bestows on Children,—in conformity with certain natural laws, and by an account of corresponding effects in the breeding of animals. With eight illustrative drawings. By ALEXANDER WALKER. Philadelphia : Lindsay & Blakiston, 1851. (From the Publishers through S. C. Griggs & Co.)

This work treats of one of the most important subjects to the welfare of posterity that can claim the attention of the young man or woman when about forming the matrimonial connection.

There can be no doubt of the great influence of parentage upon posterity, in fact, almost every thing in reference to the physical and mental characteristics of progeny may be predicted from a knowledge of the parents.

The subject though but recently reduced to a science should claim an important consideration in the education of youth, for among the means of elevating our species, in the scale of physical, intellectual and moral development, there is no one that exerts a more powerful influence than that of a proper adaptation of parents for the production of an improved progeny. Our readers will better understand the scope of the work from the following extract from the advertisement at the commencement of the volume :

“The great object of this work is altogether new and here-

tofore unattempted—the establishment not merely of a new science-- but of that science which is by far the most interesting to humanity---the science which, for the first time, points out and explains all the natural laws that, according to each particular choice in intermarriage, determine the precise forms and qualities of the progeny,--which unfolds the mode in which, and the causes why beauty, health and intellect result from certain unions, and deformity, disease and insanity from others,---and which enables us, under all given conditions, and with absolute certainty, to predict the degree and kind of these, which must result from each intermarriage.

The philosophical bases of this science have, moreover, nothing to do with hypothesis or supposition ;--they are the indisputable, though hitherto unapplied, facts of anatomy and physiology ;--and their present popular applications are rendered subjects of absolute demonstration by descriptions and drawings of families (some of them well known to the public ;) while every reader has the power to add to their number among the families of his acquaintance. They are further subjected to demonstration by all the more important facts here stated, as to the breeding of domesticated animals—facts which have not hitherto been explained or understood, and consequently have not hitherto afforded those principles on which the breeder may *now* act, with perfect certainty of the desired result.

In the First Part of the work is given an account of the physiological conditions connected with and terminating in Love, --the period of puberty, and the remarkable and interesting changes which it causes in the locomotive system and the voice, in the vital or nutritive system, and in the mental or thinking system, especially of woman. This is rendered altogether popular.

In the Second Part are described the sexual relations arising from these conditions, and connected with or leading to INTERMARRIAGE,—useful guidance and dangerous restraint, unnatural indulgence and absolute continence, and the necessity of intermarriage---subjects entirely popular and deeply interesting to both sexes.

In the Third Part are described the circumstances resulting from the preceding relations, and connected with or productive of PROGENY,—the natural preference for the various kinds

of beauty for the first time explained, the state of marriage, and the propogation of forms and qualities.

In the Fourth Part are enunciated the newly discovered laws regulating the RESEMBLANCE OF PROGENY TO PARENTS, the law of selection where both parents are of the same variety, the law of crossing where each parent is of a different variety, the law of in-and-in breeding where both parents are of the same family, the law of sex, and the law of maternal nutrition (none of them heretofore observed, and all of them here physiologically demonstrated,) as well as the circumstances modifying these laws, and the consequent easy improvement of families in beauty of forms and excellence of functions.

In the Fifth and Sixth Parts are described the vague methods of regulating progeny adopted in the breeding of DOMESTICATED ANIMALS,—in in-and-in, selection and crossing, and the application of the natural laws to the breeding of these animals—horses, cattle and sheep.

In the Seventh and Eighth Parts are described the vague methods of effecting progeny among MANKIND,—in in-and-in, selection and crossing, and the transcendently important subject of choice in intermarriage, as prescribed by the natural laws, and as calculated to correct each particular defect of the locomotive, the vital or nutritive, and the mental or thinking system, that may exist in any family or any individual."

ARTICLE XIII.

The Physician's Visiting List, Diary and Book of Engagements for 1852. Philadelphia: Lindsay & Blakiston. (From the Publishers through S. C. Griggs & Co.)

This will be especially acceptable to the systematic practitioner as it will readily enable him to keep everything pertaining to the business part of his practice in good order.

It contains an almanac for the year, a table of doses pro-

portioned to the different ages of patients, a list of poisons with their antidotes, an extract from the code of ethics of the American Medical Association defining the duties of Physicians to each other and the profession at large, blank leaves with printed heads for visiting list, general memoranda, obstetric and vaccination engagements, list of things lent, &c., &c.

It is of convenient size to carry in the pocket, and is got up in excellent style.

ARTICLE XIV.

Essays on Infant Therapeutics: To which are added observations on Ergot; History of the use of Mercury in Inflammatory Complaints; Together with the Statistics of the deaths from Poisoning in New York in the years 1841--2--3. By JOHN B. BECK, M. D., Professor of Mat. Med. College of Physicians and Surgeons, N. Y., &c., &c. Second edition, enlarged and revised. Pages 168. New York: William E. Dean, Publisher, No. 2 Ann Street, 1852. (By mail.)

Several of the Essays making up this volume were published in our Journal some years ago, and subsequently a favorable notice of the appearance of the first edition of the work. We now express our pleasure in chronicling the appearance of a new edition.

This little work is one of the best productions of its distinguished author. It treats of several of the most active and important therapeutical agents in their application to children.

Part 3—Selections.

ARTICLE I.

Paralysis of the Muscles of Deglutition. By ALFRED C. POST, M. D., Professor of Surgery in the University Medical College.

On the 28th July, 1851, I was called to see Mr. M., a strong, muscular man, from whom I received the following history of his case. The patient was an omnibus driver, 35 years of age, accustomed to the free, but not intemperate use of alcoholic drinks. Five days before I saw him, the weather being quite warm, he attempted to drink a glass of ginger pop, but found himself utterly unable to swallow, the fluid being rejected, partly through the mouth and partly through the nose. The attack was sudden, without any premonition. He was conscious at the same time of a little confusion of mind, of slight thickness of speech, and of a slight degree of numbness in the left side of his body. He sent for a physician, who directed leeches to be applied to his temples, and a blister to his throat, and ordered nutritious enemata of broth. When I saw him, there was continued inability to swallow, the effort being followed by a prolonged fit of coughing, and the ejection of a considerable quantity of extremely viscid mucus. There was no distortion of the countenance, no loss of power in the limbs, but a very slight sense of numbness in the left arm and leg. There was a little thickness of speech, more marked at some times than at others. There was no positive headache, but an uncomfortable feeling about the head, not referred to any particular part. The right pupil was moderately dilated, and the left contracted. The patient and his wife stated that this disparity in the size of the pupils had always existed. The face was always flushed; temperature of the surface natural; pulse about 100, rather small, and easily compressible; urinary secretion and excretion normal; bowels constipated. I directed the patient to be cupped upon

the temples, and to have a current of electricity, to be passed from the back of the neck to the larynx.

29th. Same condition. Repeat electricity. The hair having been shaved on the top of the head, I applied nitric acid along the course of the sagittal suture, extending the application forwards over the *Os Frontis*, and backwards as far as the protuberance of the *Os Occipitis*.

30th. No change in the condition of the patient. Ordered an ointment, composed of three grains of strychnine rubbed up with an ounce of cerate; a portion as large as a pea to be rubbed on each side of the neck morning and evening.

Aug. 2d. The patient remaining in the same condition, and having for ten days been sustained exclusively by nutritious enemata, I introduced a catheter into the *æso*phagus, and through it I gradually injected into the stomach about a pint of beef soup, which produced the comfortable sensation usually following the indigestion of food.

About the middle of the night succeeding this day, he lost his consciousness, and at the same time began to perform the most violent and frantic muscular movements, and bellowed so loud that the sound could be heard at a considerable distance from the house. I was called to him in the night, and saw him about an hour after the commencement of the attack. He remained entirely unconscious, struggling with great violence to throw his limbs in different directions, and screaming and yelling in a most frightful manner, but without uttering any articulate sound. His muscular movements were performed with such violence as to require three or four men to keep him from injuring himself. I sent for sulphuric ether, and, having moistened a towel with it, held it over his mouth and nostrils. He struggled against it for a number of minutes, and then gradually became passive. After about six ounces of ether had evaporated, his breathing became stertorous, and the inhalation of the vapor discontinued. He soon fell into a quiet sleep, a free perspiration broke out upon the surface, and the respiration was easy and natural. At 3 A. M., I lay down in an adjoining room, and slept until between 7 and 8 in the morning. I found the patient sitting up on the floor, talking with his wife. His speech was a little more confused than it had been; his conversation, although calm, was slightly irrational. I directed blisters to be applied to the calves of his legs. In the evening, I saw him again, and found him more

composed, lying in bed. In the course of the morning, he had swallowed three tumblers of water, almost without any difficulty; in the afternoon, his deglutition had again become difficult, although by an effort, he could succeed in swallowing a little fluid.

4th. His blisters were not drawn well; directed fresh ones to be applied. He is weaker than last evening, and his manner somewhat more composed.

5th. 10 A. M. Patient has been restless through the night; he is quite delirious this morning. He raises himself upon his elbow with difficulty, and holds a chord attached to his bed-post, thinking that he is driving horses; he also picks at the bed-clothes. His manner is hurried and agitated, and his language incoherent. His muscular strength is much prostrated. He died at about 1 P. M.

I regret that permission could not be obtained to make a post-mortem examination. The case of the autopsy is necessarily imperfect, but even with this defect, it is interesting, as an example of complete paralysis, evident of cerebral origin, almost entirely limited to the muscles of deglutition.—*N. York Med. Times.*

ARTICEL II.

Case of Aneurism of the Aorta simulating Phthisis. By W. B. McCREADY, M. D., Physician to Bellevue Hospital.

Andrew QUINN, laborer, born in Ireland, was admitted into Bellevue Hospital on the 27th of September, 1851. The patient was about 45 years of age, with dark hair and eyes, and much emaciated. His mother and a brother had died of phthisis. Until two years ago, he had always enjoyed good health; at this time, he was troubled with some slight pain in the lower part of the chest, shooting toward the right side, and afterwards felt upon the left. Five months ago he was attacked with a dry, hacking cough; this was soon after attend-

ed with slight expectoration, and three months ago, the sputa began to be tinged with blood. About the same time he commenced to feel warmer towards evening, and to be troubled with night sweats. Since then he has been gradually emaciating. On the 22d September, after a severe fit of coughing, he raised about a gill of thick, dark-colored blood, mixed with air-bubbles. He has since continued daily to spit blood.

When admitted, the skin was cool and moist; the pulse 80, small and weak; the respiration 25 in a minute, and the tongue clean. The voice was feeble but not hoarse, the cough soft, and there was no pain in the chest.

On physical examination the Physician in attendance found marked flatness, with tubular respiration, under the right clavicle, under the left, the expiratory murmur was somewhat prolonged. Posteriorly, there was some flatness in the superior scapular regions, with, on the right side, marked prolongation of expiratory murmur.

The patient continued to expectorate mixed blood and mucus in considerable quantity, filling a pint cup in twenty-four hours. On the 3d of October, after a severe paroxysm of coughing, he raised a pint and a half of pure, bright-colored blood. After this, he remained exceedingly feeble. He continued daily to raise blood, gradually sinking, till on the 16th of October, on making the evening visit, the house physician found him with the blood flowing in a stream from the nose and mouth. He died at seven P. M.

Post mortem examination, twenty hours after death. Body exceedingly emaciated. On opening the chest no trace of tubercle was found in the lungs. An aneurism, of the size of a large orange, flattened in its antero-posterior diameter, lay directly behind the heart, occupying the posterior part of the aorta, just below the arch. On removing the lungs, together with the heart and descending aorta, it was found that the posterior wall of the aneurism was formed by a coagulum, adhering to the bodies of the vertebræ, which were denuded and carious. At the upper and left part of the sac, a large opening, admitting two fingers, communicated with the upper part of the lower globe of the left lung, near its root. Here the blood, partly forcing its way into the lung substance, partly pushing the lung before it, had formed a large cavity, about two inches and a half in diameter, almost completely

filled with a coagulum. Three large bronchi (of the third division) had been partially denuded, and their walls very much thinned. In these two apertures, that would readily admit a small sized probe, with a number of others apparently of capillary size existed. Through these openings, air freely bubbled when the lungs were inflated under water. In the neighborhood of the affected part, the lung was inflamed. Posteriorly, and to the left, where the walls of the aneurismal sac were deficient, the edges of the opening were well defined, thick and rounded. The lining membrane of the Aorta, as far as traced, was thickened and covered with patches of atheroma. The heart itself was healthy. As the examination was made in haste, the friends being in waiting for the body, the other organs were not examined.

The patient was passed over to me when I took possession of the Ward, on the 1st of the month, as a case of phthisis. Up to the third instant, I had no opportunity of making any physical examination, and after the alarming hemorrhage had occurred on that day, I did not deem it advisable to fatigue or disturb him. If it had been made it is not probable that the real disease would have been detected. The hereditary predisposition, the history of the case, the great emaciation, the very look of the patient pointed to phthisis alone.

If accident had directed the attention of the auscultator to the spinal column, perhaps a correct diagnosis might have been formed, though this is far from being certain.—*Ibid.*

ARTICLE III.

Prevalence of Quackery in America. By JAMES H. STUART, A. M., M. D.

In glancing at our country as compared with others, we are compelled, however reluctantly, to admit that, though incomparably better in most respects, she is yet in some lamentably worse. Among these latter, rises pre-eminent the hydra

head of quackery. In no other country has this body and soul destroying crime reached such awful and impudent power. Turn where you will, from the magnificence of the large city to the humility of the country village, quack advertisements, often of the most nauseous and disgusting kind, stare you full in the face. Broad sheets are printed and forced into your very houses, whose lightest word is sufficient to sully a pure soul. The young are informed of vices which their imagination never conceived of before. The most private and shocking diseases are shamelessly paraded; and fools of both sexes are found publishing confessions of having been cured of disorders, to even a knowledge of which, modest persons would never own. Mere boys and girls read these polluting developments with an avidity only equalled by their eagerness for that literature, which law has made it penal to circulate. Mock "physiologies," &c., are issued to delude the unwary, and entrap them into those very vices which they pretend to defend them from.

Now why is all this? Why is it that a man cannot bring up his family in innocence and purity without the interference of these vile poison venders, some of whom rear palaces on the profits of their atrocious trade, and others send their children out with brazen face to associate on terms of equality with those of honorable lineage? Should not their origin render them forever outcasts; the "Pariahs of society," exiles to an eternal Coventry? Part of the cause of this is to be found in the progressive spirit of our country. As in all new countries, the go-ahead disposition still prevails to a great extent with us. Consequently, proper division of labor has not yet been established. Men grasp after the universal, and each individual seeks too anxiously to know and do a *little of every thing*, ever to do any thing *well*. The result of this, is a deficiency, among other things, of *thoroughly educated* physicians, and a great superabundance of ignorant and conceited ones. Medical men are too much addicted to "making money," and care too little for the elevation of their profession. There are double of the men *nominally* in the profession than can ever obtain even a beggarly support from the respectable practice of it. Consequently, as no man will willingly starve, they direct their attention to other means of accumulating wealth, and neglect their professional cultivation, which at once opens a door for the real unmitigated quack to enter by. Or, st if

worse, they prostitute the little medical knowledge they have to the vilest of purposes, issuing such advertisements as "Dr. ———, having directed his entire attention for some years to private diseases, challenges all competition," &c., or "Dr. ———'s celebrated cough medicine, the only one of any utility," &c.

O. W. Holmes has hit this off admirably. "Dr. C.

May be consulted for life's various ills,
And also sells the patent Pickwick pills;
Teeth are extracted. He will likewise vend
That well known ointment termed the loafer's friend."

I quote from memory. Perhaps there never was a period in the world's history, at which human credulity and absurd gullibility were so conspicuous as at present.

The history of delusions in past ages seems to have no effect whatever in suppressing credulity at present. People will laugh derisively at the advocates of the Cocklane ghost, and then turn with fond belief to the yet more absurd Rochester Rappings. They will wonder at the gullibility of those who had faith in Sir Kenelm Digby's vulnerary powders, and then with implicit confidence swallow some infinitesimal oyster shells to cure a brain fever. The efficacy of the "King's touch" for scrofula, excites their compassionate wonder, yet will they take cayenne pepper for acute gastritis. O humanity, humanity, how great, how small, how wise, how foolish thou art! All are willing to pull motes from a brother's eye.

"Oh wad some power the giftie gie us,
To see oursels as ithers see us."

Our country is essentially a money making one. Time is occupied in *accumulating* wealth, but very little in spending it. Let a man only *succeed* in his attempt to "gather gear by every wile," no matter whether "justified by honor" or not, and he is almost universally respected. Nothing is despised by which the great object is attained. Men are very anxious to punish a robber, for he takes *forcibly* from them their hard earned gains. But the quack steals so indirectly that they are scarce conscious of the theft. They consider his trade a business one, and regard their intercourse with him as a struggle of cunning. No one desires to suppress his vile trade by law, for each individual supposes himself sharp enough to escape from his clutches, and as each is successively outwitted, he maintains

a discreet silence, lest he should be *known* for a fool. All the quack's *successes* are bruited abroad, because the one who speaks of them feeds his own vanity by showing the extraordinary intelligence which actuated him in employing the charlatan. His failures either occupy nameless graves, and "dead men tell no tales," or halt through life in sullen silence, for it would do no good to warn others, and human nature leads them to smile grimly, as one after another drops into the same trap which caught them. The leniency of the law is a great cause of quackery; but I cannot consider that a decided evil, so long as innumerable medical schools send out hundreds of ignorant doctors annually, a diploma cannot be considered a proper criterion of ability. Hence any law discriminating *merely* between graduates and non-graduates would be unjust. A *radical* change must be made, or none at all. It is unfair to say to one man, you have not had means for a collegiate education, *therefore* you shall not practice; and to another, You *were* able to buy a diploma, therefore you *shall*. Perhaps the main cause of quackery is the want of union among educated medical men. Instead of joining together to suppress all irregular practice they are much more apt to be engaged in decrying each other, either directly or by knowing looks and innuendoes.

People soon remark this, and naturally think, if these men have not confidence in each other, how can *we* confide in them? They are distracted how to decide among so many conflicting interests, and too often betake themselves to quackery for relief, as the soul tossed about in the sea of polemic theology, too often seeks rest in the dark abysses of infidelity. There is also a want of moral honesty too prevalent in the profession. Physicians will resort almost unconsciously, themselves, to petty tricks, which a moment's reflection would assure them are highly reprehensible. For instance, they will assume infallibility, and pronounce positive opinions on subjects which it is really impossible to be certain. These opinions, of course, often prove fallacious, and the community, deceived and disgusted, turn to the mountebank, who promises the most ridiculous things, with a feeling that they are not *much* more to be cheated by him than by educated men. Medical organization has done much, and, let us hope will yet do more for the suppression of quackery; but is not as efficacious as it might, and ought to be. For the prevalent opinion regarding it is

that it is undertaken, not for the good of the community, but for the private advantage of the individuals associated together, and to put down certain others whose interests are inimical to theirs. And no pains is taken by us to change this opinion. No means are used to convince the laity, that scientific physicians unite, *not* to put down, but to build up, not for the further degradation of those who are too low already, but merely to separate from, and declare their non-identity with them. We think these few causes are the potent ones of quackery. Now what can be done to effect a cure? Were it possible, it would be good experiment for all respectable physicians to cease practice entirely for a year or two. The massacres committed by quacks would then be fully evident to every body, and many would undoubtedly expatiate their crimes by lynch law, victims to the rage of those whose friends they had murdered. But on the return of educated men to practice, a new race would of course arise, perhaps worse than the former. If the whole community could be well educated, it would suppress quackery. But that is impossible. I see no other way, then, but quietly and firmly to continue the great work of reformation in the slow and sure course it is now taking; to improve ourselves, to increase the stringency of our organization, and then, having thus done our duty, to leave the responsibility of their own actions with the people themselves. Those who have sense enough "to discern the evil from the good," will profit by their discrimination, and it will not be *our* fault, if those who have not, *die* in their ignorance, perhaps after having been beggared by their gullibility, to have inscribed for their epitaph,

"— He died a codger powny's death,
At some dike side."

[*N. J. Med. Reporter.*

ERIE, PA., Nov. 1851.

ARTICLE IV.

On Ovarian Irritation. By FLEETWOOD CHURCHILL, M. D.

The following description relates to an affection which, although very common, is but little noticed in books. This is probably arisen from its having been placed among the symptoms of other diseases, although it is quite distinguishable from them.

It resembles most closely the disease described by Dr. Tilt, under the name of subacute ovaritis; but the cases I have seen led me to differ from that very intelligent writer, and to conclude that the affection to which I refer is not inflammatory. I have, therefore, preferred the term *Ovarian Irritation*.

I have met with it in women of all ages between the commencement and cessation of menstruation, so that I do not think age has much influence in the production of the disease; but I am quite certain that it is most frequent in women of a delicate, nervous temperament, though by no means confined to them.

The chief characteristic symptom is an uneasiness, amounting in the greater number of cases to pain, and in some cases to very severe pain, in one or both iliac or inguinal regions, but most frequently in the left, which Prof. Simpson seems to think is owing to the propinquity of the left ovary to the rectum, and the exposure to any irritation thence arising. This pain may be a constant dull aching, or it may be acute and occurring in paroxysms; it is greatly aggravated by standing, and generally by walking; indeed, in the severer cases, I have known the patient quite unable to walk.

There is generally some complaint of fulness about the iliac region, but upon careful examination I have rarely been able to satisfy myself that this was more than a sensation; I certainly never felt any thing like a distinct tumor. There is, however, always considerable tenderness, which is extreme to the slightest touch. When the irritation is great, it may be extended to the bladder, giving rise to a desire to evacuate its contents frequently, and causing great pain in doing so. Hys-

terical paroxysms are by no means frequent. In two of the most violent cases of hysteria that I have seen for some time, there was extreme tenderness of the region of the left ovary, and pressure there aggravated the hysterical paroxysm.

If we make a vaginal or rectal examination, we shall most frequently discover nothing unusual, neither heat, nor tenderness, nor swelling; in a few cases, however, I have found that moving the uterus laterally caused uneasiness in the side affected. When speaking of a rectal examination in subacute ovaritis, Dr. Tilt remarks, that the ovaries are more or less painful on pressure, than they are from twice to four times their original size.* This I have not found in the affection under consideration, and it constitutes one reason for my doubting that it is the same disease as that described by Dr. Tilt.

These are principal local and direct symptoms I have observed; they vary much in degree, and are in some cases so intense as to resemble an attack of acute ovaritis. They differ also more or less according to the circumstances in which the attack occurs; and in order to elucidate this point, I shall briefly enumerate the circumstances.

1. In patients who suffer occasionally from amenorrhœa, it is not uncommon to find ovarian irritation at these periods, and not altogether confined to them. Whether the ovarian irritation be the cause of the suppression of the catamenia, or merely a symptom, is a question not easily decided. In many cases I think it is probably the primary affection, but in some others it appears to be the result of the amenorrhœa. The suffering is often considerable, and may be prolonged until the next catamenial evacuation; and if that be full and free, the pain and tenderness generally disappear.

2. Upon the sudden suppression of menstruation, it is not unusual for the ovaries to be almost instantly affected, either by the form of disease I have described, or by an acute inflammatory attack, which is more rare.

3. In dysmenorrhœa there is more or less ovarian irritation. If we examine the patient minutely as to the seat of the pain during the period, we shall find that it is principally in the region of one or both ovaries and often accompanied by tender-

*On Diseases of Menstruation, etc., p. 79.

ness on pressure. In the majority of these cases I am inclined to think that the ovaries are secondarily affected.

4. In menorrhagia, the ovaries may apparently preserve their integrity for a long time ; but if the attacks be frequent, I have generally found that these organs, one or both, become affected, and that the irritation frequently continues long after the discharge has ceased.

5. I have repeatedly seen this ovarian irritation accompany congestion and erosion of the cervix uteri, but it most frequently continues long after the discharge has persisted for some time, or after it is nearly or quite cured. The ovarian irritation, however, in these cases, very soon subsides.

6. I have already mentioned its occurrence in hysteria, both when the latter is evidently dependent upon catamenial disturbance, and when the periodical discharge is quite correct.

7. In some few cases I have recognised ovarian irritation in cases where the uterine and ovarian monthly functions were apparently accurately performed, but the patients were of a highly nervous temperament, in delicate health, and without offspring.

These various classes include, I think, all or nearly all the examples of the disease which have come under my observation. In many cases it requires care to separate the ovarian symptoms from those caused by the concurrent disease, but in other instances this distinction is quite obvious. When uncomplicated, the disorder rarely gives rise to any general or constitutional symptoms. Many of the subjects of it are delicate and weak, and of course this attack keeps them so ; but ordinarily the pulse is not quickened by it, and there is neither heat of skin nor thirst. The appetite is seldom good, but it is not worse than usual, and the bowels are irregular. I have examined the urinary secretion, and have repeatedly found it scanty, acid, and occasionally mixed with mucus.

As to the *pathology* of this affection there are several points of considerable interest. I think that we can entertain no doubt that the ovaries, one or both, are the seat of the irritation : the peculiar and fixed locality of the pain, and its frequent connexion with the ovarian function of menstruation, all confirm this view. But the next question is more difficult to decide positively, viz : is the disorder an inflammatory affection of the ovaries, either acute or subacute ? The disease described by Dr. Tilt certainly presents characteristics of in-

flammation, which I have never observed in the present disorder. The absence of tumefaction generally, and a distinct tumor always, the negative results of an examination *per vaginam* and *per rectum*, the intermitting and paroxysmal character of the attack, the absence of all the ordinary results of inflammation (as abscess, accumulation of fluid, etc.,) even in the severer cases, and the success of a certain line of treatment, are all, to my mind, very strong arguments for the non-inflammatory nature of the disease. In most of these particulars, it differs from the subacute ovaritis of Dr. Tilt. I have certainly seen some cases in which the point seemed doubtful, and it is probable that the one form of disease may, under certain circumstances, merge in the other; but I cannot resist the conviction, that the affection I have described is essentially neuralgic, and not inflammatory.

Again, it may be asked, is this ovarian irritation the cause of the menstrual disorder or its effect, or merely a concomitant symptom? No one acquainted with the present state of ovarian physiology could deny that the integrity of the menstrual function must be largely influenced by the condition of the ovaries. If this ovarian irritation always preceded the catamenial period, I should be inclined to attribute to it the subsequent distress; and in many cases it appears to me that I could so trace it as the chief cause. But, in some cases, the ovarian irritation distinctly followed the menstrual disturbance or came on towards the termination of the monthly period; and lastly, in other cases, the irritation existed with no catamenial derangement at all. Without doubting, therefore, that ovarian irritation may disturb the menstrual functions in various ways, I cannot agree with those who think that it invariably does so, nor yet with those who are inclined to attribute all menstrual disorders to deviations from the normal condition of the ovaries.

I need not occupy time by enumerating many *causes* for its production; all those which act upon either the uterus or ovary and disturb their functions, may be considered as causes of ovarian irritation, and among these the most frequent, probably, is cold.

I believe that, in many cases, excess in sexual intercourse has given rise to it; and I am also inclined to think, that in a few cases I have known it originate from the entire deprivation of that stimulus. For some valuable remarks on this sub-

just, I shall refer my readers to Dr. Tilt's excellent work,* a review of which appeared in a late number of this Journal : all that he says upon this point is, I think, equally applicable to ovaritis and ovarian irritation.

The circumstances under which the attack occurs, I mean its relation to the menstrual functions, the symptoms, and the peculiar locality of the pain, render the *diagnosis* tolerably easy in most cases. It may certainly, be mistaken for intestinal irritation ; but, in general, there are no other symptoms than the pain to justify such an opinion. The bowels, even if irregular, are free from irritability.

It will, however, require a little more trouble to render it certain that there is not acute ovaritis, which the tenderness might lead us to suspect. But this tenderness is *generally much greater than that resulting from inflammation* ; it is a kind of a nervous tenderness which shrinks from the weight of a finger as much as from severe pressure. Moreover, in acute ovaritis, the organ is always swollen and enlarged, and it can generally be felt distinctly to be so by an internal examination.

In phlegmonous inflammation of the uterine appendages, or pelvic abscess, as it has been termed, the hard and painful tumefaction is quite plain at the brim of the pelvis, and, therefore, it cannot easily be confounded with the present disorder.

I shall not enter at any length into details of the *treatment* of this disease, inasmuch as I have only my own experience to which I can refer. The choice of remedies will be governed, to a certain extent, by the health, strength, and state of constitution of our patient. With strong, healthy women I have tried leeches to the ovarian region, with some benefit but not complete success, nor in all cases ; from six to twelve may be applied at once, and repeated, if necessary, after an interval. Poultices after the leeching are of use ; and indeed, when no leeches have been applied, I have seen much comfort and relief derived from repeated poulticing. With delicate women, and they are frequently the subjects of this disease, bleeding in any form has appeared to me rather injurious than beneficial.

I have tried the repeated application of small blisters with

*On Diseases of Menstruation, etc., p. 53.

better results than leeching. The irritation of the surface certainly relieves the pain in many cases, and, if continued, may finally cure it ; but I must confess I have seen it fail repeatedly.

Anodyne liniments and anodyne plasters occasionally seem to afford relief, but they are often of little or no use ; I tried anodyne enemata several times with partial success.

In two or three cases I used the tincture of aconite, applied liberally to the iliac region, but I confess the result disappointed the expectations I had formed.

Having failed in affording any relief in two or three obstinate cases, I determined to try the effect of opium applied to the upper part of the vaginal surface. I accordingly ordered some balls or pessaries to be made, somewhat in the mode of Dr. Simpson's medicated pessaries, each ball to contain two grains of opium, half a drachm of white wax, and a drachm and a half of lard. The whole, when mixed together, formed a ball about the size of a large marble, and I placed it at the upper end of the vagina by means of the speculum, leaving the patient in bed for the rest of the day. The success was quite beyond my expectation ; the relief was very speedy, and in most instances complete. Even when the pain did return after a few days, a second application removed it. The tenderness disappeared with the pain, and no unpleasant consequences have resulted in any instance.

I have now tried this remedy in a considerable number of cases, and with almost invariable success. I have rarely found it necessary to bleed or blister since I first adopted this plan ; and I recommend it with considerable confidence to the Profession. I may add that I have tried these pessaries in cases of dysmenorrhœa, applying one the day before the catamenia was expected, with decided benefit.

It is hardly necessary to say that, in this disease, the bowels should be regulated, and gently freed by medicine when necessary. If the appetite be bad, vegetable bitters may be given, and I have generally found it useful to combine some alkali with them.—*Dublin Quarterly Journal, Aug. 1851.*

ARTICLE V.

On the Protective Power of Vaccination. By S. ANNAN, M. D.

The following view upon this subject, have recently been promulgated, at a meeting of the Royal Medical and Chirurgical Society of London.

Dr. Gregory, the Physician of the Small-pox Hospital, stated, that from the year 1844 to 1850, 2854 cases of small-pox had been admitted; and that of these, 1500 were after vaccination. The whole number of deaths had been 579; and of these only 75 were amongst the vaccinated portion. He also gave his opinion that the protection afforded by vaccination up to the period of puberty, fifteen years of age, was equal to that afforded by inoculation for small-pox all through life. After fifteen, the system was subjected to another law. Previous to that age, we might banish all fear; inasmuch as cases of small-pox after vaccination were exceedingly rare; but after that period, vaccinated persons were liable to a first attack of the disease, and were exposed to the chances of a second attack at fifty or sixty years of age. Inoculation gave one attack of small-pox, and there was an end of it. With a few rare exceptions, in the cases of particular families and individuals, there was no second and third attack. Modified small-pox was unknown up to the year 1817, about fifteen years after vaccination was first performed. The cases of this disease had gone on increasing since the year 1825, and the results now were, that 1500 patients had been admitted into the London Small Pox Hospital, in seven years, with small-pox after vaccination. Most of these were modified, but many were of a severe form of the disease. The deaths from small-pox after vaccination, might be said to be a little above five per cent; in some places, as at Copenhagen, it was as low as three per cent. He had never seen modified small-pox in the young, either in public or private practice; neither had he read of it in books, nor heard of its occurrence abroad. It was only to be found occurring in the adult. He hoped the statements advanced would not shake the confidence of

the public in vaccination. Even if vaccination prevented small-pox only in one-half of the cases in which it was performed, it was a great protection ; and as it was shown by statistics that about half the population died before the age of fifteen, it afforded to that half, at least, perfect and complete protection.

Drs. Mayo and Copeland were of opinion, as the result of their experience, that the protective power of vaccination, until the age of fourteen, was more complete than that of inoculation ; that a greater number became affected with small-pox after inoculation, than after vaccination ; and that more of the inoculated died than of the vaccinated.

Dr. Gregory also stated, that he regarded re-vaccination as a proceeding of very little moment. It satisfied the mind of the public, but did not affect any real good. It was an error to suppose it afforded any additional protection. After fifteen years of age, the constitution began to be susceptible, for the first time, to the influence of small-pox, and the susceptibility increased up to middle age and maturity. There was but one mode of adding to the protective power of the first vaccination, and that was by inoculation with small-pox matter after the age of fifteen. Cazenave and others, had performed in France, many experiments, which proved, that inoculation after fifteen, in persons previously vaccinated, did not produce a vesicular or pustular eruption, but only a popular one, and that this was not contagious. This he knew to be true, and he firmly believed it served as a protection for life.

With respect to the indications afforded by the appearance of the cicatrix, as to the perfect or the imperfect performance of vaccination, Dr. Gregory remarked, that he thought it had been long ago conclusively settled, that no conclusion whatever could be drawn from the appearance of the cicatrix. If a good cicatrix were found, then you might be satisfied that the vaccination had been perfectly performed ; but if the cicatrix was imperfect, you had no right to assume that the patient had not been well vaccinated ; for in these cases, the process of reparation might have been quick, there might have been little inflammation, or there might be other causes to account for the imperfect cicatrix. He had long long ago published cases on this point.

Dr. Addison inquired of Dr. Gregory, what his impression was respecting the identity of small-pox and chicken pox ?

Dr. Gregory answered that the diseases, though bearing some relation to each other, were undoubtedly different and distinct in their nature. In proof of this, it has been demonstrated, that genuine vaccination had been received before and the occurrence of chicken-pox. The occurrence of the latter previously, made no difference in the development of the former. In addition to this, the two diseases might go on together in the same person. None of these modifications had ever been witnessed in cases of small-pox and vaccination.

Dr. Marshall Hall stated, that sometimes a child resisted vaccination; and he desired to know from Dr. Gregory, whether it was still liable to take the small-pox? His own son had been vaccinated fourteen times without effect. No vaccine vesicle ever formed. At thirteen years of age, he was observed to be covered with an eruption. Some of the spots once exhibited the form of distended vesicles, of moderate size, observed in chicken-pox. Others of the spots went through the regular course of horn-pock, occupying five or six days. One or two on the face left distinct pits, the result of sloughing, as seen in small-pox. Dr. Hall added, that such a case seemed to demonstrate the insecurity of the patient, when vaccination had failed several times, and to confirm the opinion of Dr. Thompson, that varicella and modified small-pox were the same disease, for in it they occurred simultaneously. Dr. Gregory replied that he had no hesitation in saying that the variolous poison had done its worst; and though Dr. Hall's son might have the ill luck to contract secondary small-pox, the great probability was that he would not.

At the same meeting of the Society several cases were narrated, of second and third attacks of small-pox; some of them after inoculation, some after natural small-pox. In one of the cases a gentleman who had been vaccinated in infancy, when three months old, had three attacks of small-pox; one when he was six years old, a second when he was eleven, and he died in the East Indies; of the third attack, when he was twenty-three years of age.

This must be regarded as an extremely interesting discussion; partly from the nature of the subject, and partly because several of the most eminent physicians of Great Britain participated in it. It would appear that we are at last

arriving at a proper knowledge and a just appreciation of the value of vaccination. While we must admit with Chomel, that "we cannot fairly exact more from vaccination than from the small-pox itself," if Dr. Gregory's opinions are well founded, that every individual after fifteen years of age, although fully protected up to that time by the power of vaccine disease, is liable to be attacked by small-pox, and that re-vaccination is no manner of service, there is great room for apprehension that as the general force of vaccination diminishes in large communities, the small-pox contagion may acquire an augmentation of power, and at length come to predominate. Dr. Gregory informs us, that the cases of small-pox after vaccination, have gone on increasing since 1825. If this increase should be progressive, as must necessarily happen under existing circumstances, it is manifest that in time, small-pox will preponderate, and the beneficial effects of vaccination wear out. As the force of general protection is lessened, the power of general predisposition will become greater, and we shall be compelled to resort to some additional means to prevent a return to the old epidemic ravages of small-pox.

At the present time, although we have occasional examples of persons dreadfully disfigured, and of death from small-pox after vaccination, the number is not so great as to cause much alarm. The improvement upon the old state of things is inestimable. In England, previous to the introduction of inoculation, one-tenth of the total mortality was occasioned by small-pox. After inoculation was introduced, it fell to one-fourteenth; but now, when vaccination is general, the deaths by small-pox are about one in eighty-five from all diseases; thus amounting to only one-sixth of the ratio, when small-pox inoculation was the sole preventive.

If matters should threaten to become much worse, and the number of cases subsequent to vaccination, go on progressively increasing, we are not shut up to patient endurance of the evil, but can have recourse to inoculation after puberty, depending upon vaccination up to that period. If the views at present entertained as to the mildness of small-pox communicated at that time, and as to its protective power being complete for the remainder of life, should be fully established by repeated trials, and by time, our situation will be far from

being deplorable. In the mean while, each adult may hope that the protection in his own case, although not perfect, is sufficient to prevent an attack of this loathsome disease, or to modify it, if it does appear.—*Transylvania Med. Jour.*

ARTICLE VI.

Diet in Protracted Fevers. A letter to the Editor, by E. B. HASKINS, M. D.

Dear Sir: When I saw you last, I promised a contribution to your excellent Journal, and as the continued fevers* of the West are being investigated with increasing interest, I propose, briefly, laying before your readers some suggestions relative to the diet most proper in the protracted stage of these fevers.

On some future occasion I may give my experience in full, in the management of the continued fevers of this locality; but at present will confine my remarks to the single point already mentioned.

It is well known to your readers, who have at all kept pace with the advancement of chemico-physiology, that in the food of man, there are two great classes of alimentary substances, to subserve the wants of the ever-changing organism—the *nitrogenous* and *non-nitrogenous*. The former being destined for the nourishment of the tissues, whilst the latter subserves, mostly, the purpose, by slow combustion, of the generation of animal heat. It is not denied that in the process of disin-

*Usually termed Typhoid Fever, from some semiological likeness to the fever studied and described under that cognomen by Louis, Schomel and Andral of Paris, and subsequently identified in America by Gerhard, Jackson, Pennock, Hale and others, and still more recently in Scotland, Ireland, and England, by Stewart, Kennedy, Jenner and others. It is not difficult to foresee the confusion likely to grow out of the loose application of this name to the continued fevers of this country. The identity of Typhoid Fever is based, essentially, upon *anatomical* peculiarities, and it is to disturb the precision of scientific language to apply this name to our fevers, before the characteristic lesion has been clearly made out. It is not unusual to see a long essay on Typhoid Fever, in every way interesting—except the author has made *no post mortem dissections of fatal cases*, and, perhaps, some of the most characteristic symptoms of that disease have not been observed by him!

tegration, or wasting of the tissues some heat is evolved, and, also, that some fat enters into the composition of those tissues, whilst other portions seem necessary to give symmetry to the body and form cushions of support to movable parts; yet the above classification of alimentary substances, based upon their uses, is regarded mainly as true. It may also be remarked, that that portion of the non-azotized substances, not directly burned off in the circulation is converted into fat** and deposited in the adipose tissue for further use.

This economical disposition of respirable materials, is beautifully illustrated in the habits of hybernating mammalia---that go into their winter retreats loaded with fat, and come out in the spring comparatively lean. As such animals remain physically inactive during the season of hybernation, of course but little waste of muscular or other vital structures takes place---not more than can readily be supplied by the proteinaceous compounds already in the vascular system.

Now, when a subject enjoying ordinary health is seized with continued fever, little or no food is required for a number of days; the blood being charged with azotized matter sufficient to supply the waste from tissual disintegration, whilst in the adipose cells there is already fat enough for respiratory purposes.

But should the disease continue unchecked, the time arises when food becomes imperative---when the limbs become lean and emaciated, and prostration of strength supervenes. All agree as to the *time* for the more prompt and regular administration of food; but the *kind* of food best suited for this state seems not to have met with so general an agreement. The diet usually prescribed in such cases is animalized waters, as beef tea, chicken water, &c., and that the manner of preparing them is to remove all of the fat as it rises to the surface in the process of boiling. So the patient, it is perceived, ingests nothing but azotized food.

Now what, *a priori*, will be the course of a protracted fever under such a diatetic system? It is clear---the adipose tissue being exhausted of its moveable fat, and no starch, gum,

**Dumas, Boussingault and Payen have denied that the animal organism can elaborate fat out of the non-azotized substances; yet the experiments at the Giessen laboratory, under the direction of Liebig, as well as those by Dr. Thompson, of Glasgow, fully sustain the doctrine.

sugar or other combustible material being furnished to the blood, the oxygen of the inspired air seizes upon the tissues, and the brain being, perhaps, the most oxydizable, is the most energetically attacked, and as fatty matter enters largely into its composition,* no adequate reparation can take place—hence delirium, subsultus tendinum, wakefulness, and other manifestation of morbid cerebro-spinal activity†—phenomena too often witnessed at the bedside, and always portends an unfavorable issue.

This hypothetical view of the pathology of the brain, is in some degree, supported by the fact that post-mortem examinations have failed to detect any constant lesion in that organ; and when congestion or inflammation has been found, it is not violent to presume that it came on as a secondary lesion.

The point in the dietary of protracted fevers, to which I wish to direct attention, is already clear to your mind—that non-nitrogenized substances, as starch, gum, sugar, &c., should be freely administered, instead of the exclusively nitrogenized diet. By thus furnishing respirable materials, the tissues, particularly the *brain*, are protected from the destructive influences of the inspired oxygen. These materials, then, are far more essential to the organism, under such circumstances, than the azotized substances; since, whilst the muscular system is comparatively at rest, the histological elements undergo very slow disintegration, as is exemplified in hibernating animals.

The non-azotized alimentary substances, as is well known, can be rendered as palatable and inoffensive to the sick, (oils excepted,) as can the nitrogenized. Sweetened gum water, arrow root jelly, barley water, and even the gruel of indian meal are quite palatable and unirritating to the most delicate stomach. To secure, however, all of the possible dietetic wants of the system, they may be alternated with the nitrogenized diet.‡

*The adult nervous matter contains about 6 per cent. of *cerebral fat*.

†See Leibig on the effects of starvation in his *Animal Chemistry*.

‡Dr. Prout was of the opinion that fat should subserve the purpose of tissual nutrition, in general; though physiologists of the present day, pretty uniformly concur in the opposite opinion.

In conclusion, I will take occasion to remark, that in determining the course of practice upon the theoretical grounds, great caution is necessary, that we commit no extravagances. We should never, from a priori reasoning alone, abandon well established therapeutic usage. The most that may be ventured upon with impunity is the modification and correction of unenlightened experience, and the furnishing materials for such blanks as observation has failed to fill up. Ratiocination is too uncertain a guide to be wholly trusted to in the prosecution of an art like therapeutics, based upon *progressive* science. Kept within these restricted bounds, reason performs her legitimate office in the advancement of a profession that can never be purely empirical or national.

CLARKSVILLE, Tenn. Nov. 5, 1851.

[*Nashville Medical Journal.*]

ARTICLE VII.

KINEISPATHY.

A new system of medical practice has been introduced into Europe, and it may naturally be expected that it will be imported, and sooner or later practised among us. It would not be strange were it to supercede and take the place of homœopathy, to which it is assimilated in other points besides a common lack of science or reason. It certainly is superior on the score of economy, for though the doses to be shaken in the former are infinitesimal and therefore portable and cheap, in the latter no doses at all are required, and all the mysterious movements and "shakings" are to be accomplished on the sick body itself! The originator of this improved system appears to have been a Swedish fencing master by the name of Ling, who is represented, in the *Edinburgh Monthly Journal*, to have been an universal genius. He was successively a graduate in theology, a volunteer in the Danish navy, (in spite of gout in his arm,) a lecturer on old Norse poetry, history and mythology, a professor of fencing and gymnastics, a student

of anatomy, physiology and other sciences, a writer of poetry, and, withal, "a man of high moral tone, pious, sincere and honest," and died in 1839 with the honors of knighthood upon him. His qualifications are therefore unquestionable! All that Ling himself appears to have really accomplished, and probably all that he claimed at first, was set forth in a work published by him, and may be considered as merely an improvement in the practice of gymnastics and calisthenics. Upon this has been engrafted the system of quackery alluded to above. M. Roth, M. D., of London, who comes before us clothed with Ling's mantle, has sent out an octavo of 300 pages, devoted to the treatment of disease by "movements," alias Kineispathy. His interpretation of the term is as follows:

"By the word *movement*, in a medical and hygienic sense, is to be understood every change of position and difference of form, determined by time and amount, in the whole body, or in any part of it, and which may be produced by the organism itself, or by any animate or inanimate mechanical agent."

In accordance with this definition, there are a great variety of movements; quite as many as there are dilutions and potencies in the homœopathic system; and each and all possess great power over the human body, as is rendered plain by another quotation:

"Whatever exists in our body, either as a part of it or as a foreign substance, must at a certain moment have a definite shape; therefore every change of the space in one part necessarily produces a corresponding one in the surrounding tissues; a change is hence propagated to the most remote parts of the body, and which depends, with respect to its form, upon the amount of the alteration produced by the first movement."

Lest any one should still be in the dark, however, respecting what kinesipathy really is, we copy the full definition of one of the movements and its effects. It is called the

"Chopping Movement.—Chopping consists in alternate short blows, produced by the external side of both the operator's hands. Choppings are principally used on the posterior surface of the trunk, chest, and also on the limbs. If it is desirable that the succession produced by this movement shall be less and softer, then the chopping is done with the external edges of the two little fingers, while the other fingers are spread

apart, but not spasmodically fast, so that they act also by striking upon the little finger.

"Chopping may be confined to one only, or may be exercised on a larger surface, by constantly moving the position of the hands. The chopping is called a *longitudinal* one, if the hands are moved in the longitudinal direction of the trunk or of the limb; and a *transversal* one if the blows are executed across the limbs.

Effect.—Choppings produce generally a venous absorption in the capillary texture, not only of the external skin and the tendinous expansions, but also, if more strongly used, in the muscles and bones; in imperfectly paralyzed muscles they excite the innervation both of the motory and sensitive fibres. If directed on the lower extremities, on the soles, they act very well in hæmorrhoidal complaints, headache, &c. On the chest or along the spine, they are efficacious specific movements in certain complaints of the chest, partly by their direct influence on the muscles of the chest, partly by the tremulous, passive vibration communicated to the lungs."

Then there is the "shaking movement," the "rising-up movement," the "letting-down movement," "transversal chopping," "vibration," &c., &c., which we have not room to describe. These "movements" are all claimed as a remedy in acute as well as chronic diseases. In gonorrhœa, even, cases are brought forward to show their great efficacy. Can quackery and imposture "further go?" It does really seem as though we might hope that "things will come right at last," when such a multitude of absurdities and inconsistencies are countenanced and supported by those who break sway from, or who never have entered, the ranks of legitimate and scientific practice.—*Boston Med. Jour.*

ARTICLE VIII.

PRACTICAL ITEMS.

Muriated Tincture of Iron in Erysipelas. By Dr. BELL, [Edinburg Monthly Journal of Medical Science.]

Act freely on the bowels, and if the erysipelas is mild give 15 drops of the muriated tincture of iron in water every two hours until the disease is completely removed. When the attack threatens to be more severe, increase the dose to 25 drops every two hours, and persevered in night and day, however high the fever and delirium. The only local application necessary, are hair powder and cotton wadding. The bowels should be attended to throughout the disease. The tincture has been prescribed in idiopathic erysipelas, and in that resulting from external injury with the most satisfactory results; and it has been found equally efficacious at every period of life, from early infancy to advanced age. It not only removes erysipelas in a remarkably short time without weakening the patient, but it effects such an improvement in the system, that those who are subject to periodical attacks of the disease are rendered much less liable to have a return. It is a remarkable circumstance in the administration of this valuable remedy in the erysipelatos diathesis, that although given in much larger and more frequently repeated doses than have been recommended in our dispensaries, it never produces headache, and when this symptom is present it quickly relieves it; at the same time, it reduces and regulates the pulse; thus showing that in this state of the system, it has a soothing and sedative, as well as an alterative effect.---*In N. Lancet.*

Collodion in Ingrowing Toe-Nail. By M. MEYNIER.—Press down the fleshy portion, and pour between it and the edge of the nail a small quantity of collodion; this soon solidifies induces rapid cicatrization of the ulceration, and when the disease does not arise from an abnormal shape of the nail, procures a cure.---*Ibid.*

Pruritus of the Genital, Anal, and Axillary Regions. By Dr. TOUNIE, [in L' Union Medicale.]

The following preparations are employed in the treatment of this troublesome affection: 1. An ointment of calomel, (4 to 6 parts calomel to 30 of axunge; 2. A powder composed of $\frac{3}{4}$ of starch and $\frac{1}{4}$ of camphor, well pulverized and mixed. The proportion of calomel may be increased in the ointment, and that of camphor in the powder, according to the obstinacy of the disease. If the diseased parts are covered with scales or dry crusts, promote their separation by cata-plasms and emollient baths, then apply frictions twice a day with the ointment, and after the frictions, sprinkle the parts with the starch and camphor powder. Both remedies are to be employed; the ointment alone is inefficacious, and the powder without the ointment, allays the itch but does not cure. These remedies exert no influence over the itching of the genitals that frequently accompanies the pregnant state.---*Ibid.*

New Plan of Ligaturing Nævi Materni. By Mr. ERICHSEN, [in London Lancet.]

Four cases are reported in which the writer resorted to a new plan for ligaturing nævi; this mode is best adapted for elongated flat nævi, and in all those in which the ordinary ligatures cannot be applied without enclosing an undue quantity of integument. The mode of operating is as follows; make a puncture about an eighth of an inch above the tumor, with a blunt-eyed probe, push the head across the base of the mass; cut down upon its point when it projects below the tumor and then draw it across; the transverse threads are to be carried through in a similar manner; tie the knots in the usual way and you firmly and effectually strangulate the mass. The threads and sloughing mass will separate in a few days, leaving a healthy granulating surface, which speedily cicatrizes.---*Ibid.*

Iodide of Potassium in Asthma. (Dr. DEANE, in the Stethoscope.)—Three cases are related in which the administration of this remedy was followed with the most marked, and apparently permanent relief. The first is that of a clergyman,

who had labored under the disease for several years ; by taking the iodide he was immediately relieved, and was always able to ward off an attack by resorting to this remedy.

Case 2d. A young man aged 16 years, was affected with asthma for seven or eight years ; he took five grains of the iodide every two hours, and he was much relieved the next morning, the benefit being manifest after the exhibition of the second or third dose. Whenever threatened with a paroxysm, the immediate use of the potash prevented it.

Case 3d. A woman aged 32, suffered from regular attacks of asthma in the month of May, which had recurred for eight years, and was supposed to be occasioned by the odour of flowers. She took eight grains of the hydriodate of potash every four hours ; the symptoms were greatly mitigated during the next twenty-four hours, and after using the remedy in this way for three days, she was so much relieved that further treatment was discontinued.—*Ibid.*

Modification of the Operation for Hare-Lip. (Mr. COSTE.)
—To obviate the notch that remains after the ordinary plan of operating for this deformity, more especially in the simple kind, proceed as follows : cut a horizontal flap in the red part of the lip on one side, and a kind of half mortise on the other ; secure the flap and mortis by twisted suture, and by one of the diminutive sprig forceps called “*serre fines* ;” place a transverse needle a little higher up, and make no application whatever that the progress may be more accurately watched.—*Ibid.*

Yeast Mixture in Petechial Typhus. (Dr. JONES, in Dublin Quart. Jour. of Med.) Dr. J. speaks very highly of the stimulating and antiseptic properties of the following mixture in cases of typhus attended with petechiæ and other forms of passive hemorrhages :

R. *Cerevisiæ fermenti* 3x ;

Camphoræ 3ss ;

Ætheris nitrici 3iv. 3j to be taken every first, second or third hour. This removes the dark livid hue of the skin within a few hours ; administered in cases of dysentery attended with great fetor of the dejecta, it has speedily removed all odor, and at the same time rather counteracted the frequency of the discharges from the bowels.—*Ibid.*

External Pressure in difficult Parturition. (Boston Med. Jour.) It often happens that a woman in labor lack but very little of being able to evacuate the uterus by her own expulsive force, and the little force that she wants may be most conveniently and safely rendered by a judicious swathing of the abdomen. The end may be obtained in this way. Take for a swathe, a sheet, and fold it on one direction till it is reduced to about a quarter of a yard wide, retaining its whole length in the other direction. Lay this smoothly on the couch so that the woman can lay across it on her side. Then raise up the two ends of the swathe and bring them over her so as to cross on her hips, and give the ends to two assistants. If it is well adjusted they may use considerable force without any inconvenience to the patient, but rather the contrary. It is the most comfortable support to the back that she can have, and every pound of pressure smoothly and justly made on the abdomen is at least as good as so much traction on the child.

Another important consideration is that the expulsive action of the uterus is by this means increased, as is sometimes done by friction. The writer has resorted to this means in a large number of cases with decided advantage, and has not in a single instance met with any untoward circumstances, altho' the force applied has in some cases been about as much as two assistant women could apply. It may sometimes save the use of the forceps or of "turning," and is a less serious undertaking even with the smallest experience and judgment.—*Ibid.*

Ergot in Visceral Engorgements. (Dr. BARBIERI, in Bull-delle Sc. Med. vol. xxvii.)—The writer has derived great benefit from the prolonged internal use of ergot of rye in hæmoptysis and incipient phthisis; and has obtained the same satisfactory results by its external application in splenic and hepatic engorgements, due for the most part to miasmatic causes. He either employs the pulverised ergot alone, ʒj to ʒj of simple ointment, or, when he wishes to produce more energetic cutaneous action, he adds five drops of croton oil, and in very serious cases five drops of creasote as well.—*Ibid.*

Hemorrhoids treated by Nitric Acid. (Dr. THWEATT, in the Stethoscope.) The patient had been affected for fifteen years with bleeding piles, and with a prolapsus recti on each attempt at stool. Having submitted to every plan of treatment without the slightest benefit, Dr. T. recommended cauterization with nitric acid. It was applied by penciling the tumors until it produced a change of color. The operation produced very little pain, and the parts were dressed with lint and sweet oil. On the second day he was entirely free from pain; the piles were less congested and slightly diminished in size; the bright red color was changed to a dirty brown. He was made to strain at stool, which act brought to view tumors situated higher in the rectum. These were cauterized as at first, a straining, burning pain excited. On the third day, the piles were again touched. A short time after the last penciling, he was cured; no tumors, either internal or external, and there was no further prolapse of the gut.—*Ibid.*

Very minute doses of Tartar Emetic in Phthisis and Asthma. (M. BERNARDEAU, in Bull. de Therap.) The writer some time since published the results of the general benefit he has obtained from the exhibition of very minute doses of tartar emetic in the hectic of phthisis. He has, since that period, used it in other stages of tuberculization, and in several cases of asthma with excellent effects. He gives from three to six pills in the twenty-four hours, each pill containing one twenty-fifth of a grain. The cough, dyspnœa, and inordinate action of the heart become calmed, and in fact, all the good effects of morphia, without its inconveniences seem to be produced.—*Ibid.*

Pumpkin Seeds a Remedy for Tape-Worm. (Dr. F. CRAGIN, in Boston Med. Jour.)—The patient took undried acorn or marrow squash seeds, followed in one hour and a half after with 3vj of castor oil in two spoonfuls of Holland Gin. He drank very little water twice, drank and eat nothing else till noon, when occurred a liquid discharge containing the squirming worm about one-third of an inch broad at one end, and tapering down to nothing at the other.—*Ibid.*

Part 4.—Editorial.

ARTICLE I.

INDIANA HOSPITAL FOR THE INSANE.

In a preceding number of the Journal we noticed the reception of the Report of this Institution for 1850, with a copy of the report of a committee appointed by the State Legislature to investigate charges made against some of its officers, which we promised to notice and to make some historical remarks in reference to the establishment; which up to this time have been neglected. The reception of the report of the institution for 1851 again reminds us of that promise and though limited for space we will endeavor to redeem it. If it becomes necessary in giving this history for us frequently to refer to the part we took in originating, planning and building up the institution we hope it will not be regarded as immodest, as no record has yet been published that furnished an accurate account of its inception and early management.

The originie of the Indiana Hospital for the Insane was in the darkest hour of Indiana's pecuniary history. It was when her own treasury notes, bearing six per cent. per annum interest and receivable for State revenue were only worth fifty cents on the dollar. It was when the State debt like a huge mountain whose top was out of sight rested as an incubus upon her, and paralyzed to irresolution the energies of her stoutest hearts. As of necessity under such circumstances, its progress was slow. In December, 1840, a memorial from Dr. Isaac Fisher and myself, then of Attica, was sent to the Legislature, upon which Dr. James Ritchey, now one of

the commissioners of the institution, and from this time forward one of its most efficient and devoted friends, made a report, from a standing committee of the Senate, in which he ably set forth the necessity of the measure. The next autumn I published an article in the Wabash Express urging upon the people its necessity, and the winter following sent up another memorial to the Legislature which was, with one from Dr. Matthews, referred, and again favorably reported upon by Dr. Ritchey, who introduced a resolution instructing the Governor to correspond to obtain information upon the subject. In pursuance of this, Governor Bigger employed an architect, Mr. I. P. Smith, of New Albany, Ia., to visit the Ohio Lunatic Asylum, and draw a plan for such an institution as he thought Indiana required, which plan was laid before the Legislature the following winter, but received no further attention.

I again laid a memorial before the Legislature, urging the necessity of immediate action upon the subject, which was referred to the committee on Education, which committee I addressed before a public audience, by special invitation, on the 25th of December, 1843. In this address, which was published at the time, and by request of the committee having charge of the subject re-published the winter following, I set forth the necessity of such an institution and the obligation of the State to provide one, and urged that a tax of one cent on each one hundred dollars valuation of property be levied then, to raise a fund with which to erect buildings.

The committee of the Senate consented to reconsider a report that had been drawn up against the measure, and by the efforts of Drs. Ritchey and Cornett, reported in favor of the tax being levied, which report was adopted by the Senate, and the revenue bill was so passed as to impose the tax. This tax was afterwards continued from year to year.

The following winter, 1844-5, three commissioners were appointed to purchase a site and present a plan for a building.

Dr. L. Dunlap, James Blake Esq., and myself constituting the board.

After a visit to similar institutions in the Eastern States, I reported to this board the results of my observations, with the description of a plan for a building, which report was published in the first report of the commissioners to the Legislature of 1845--6. That Legislature adopted the plan of building I had recommended, and which the board had employed Mr. John Elder, architect, to make drawings of, and, also, authorized its immediate erection. Materials were purchased and the basement story erected the following summer and fall under my care, having been appointed Superintendent. During the summer of 1849, the walls were erected, and it was then contemplated that a part of the building might be furnished early the following year so that it might go into operation. I gave the board notice that I should resign the following year as I did not design to continue superintendent after the institution was ready to receive patients. A law was passed the winter following for the government of the institution and providing for the mode of admitting patients. In July, 1848, R. J. Patterson, M. D., the present superintendent, entered upon his duties.

Since this time the institution has annually been sending forth the triumphs of its power to heal, in its numerous patients that have been returned to their families and friends clothed and in their right minds.

Although there may have been some errors in the management of the institution, (it is human to err,) which could be seized upon and used as weapons in the hands of opponents to its officers to injure them, as would appear from the investigation that was had, the good it has done, its sacred character, its benevolent object, its mission of mercy, should guard and protect it against any exaggeration of those errors, any unfounded accusation, or any malicious opposition.

The investigation of the charges appears to have been thorough, and from the honorable character of the gentlemen composing the committee, we infer that it is worthy of confidence.

The report of the committee finds no blame to attach to the commissioners, excuses all the errors of the superintendent that came to their knowledge, on the ground of inexperienced attendants, and says : "The manner in which the duties of the Assistant Physician, Matron, and Steward are discharged is worthy of all praise and commendation."

We are exceedingly sorry to see the law prohibiting the officers of the institution from trafficking with it disregarded, as the law is the only security that the State has, against the subordinate officers of the institution using their patronage in trade to secure the favor of those who enjoy the appointing and removing power, which, if so used, will as certainly lead to abuse. No steward holding under a board that have the power of removing him, if members of that board are engaged in trade with the institution, will be likely to be perfectly independant in the discharge of his duties. And if the steward was allowed to speculate in furnishing the establishment his perquisites would be easily swelled to thousands. We hope the people will insist upon the observance of this wholesome and salutary law, and extend its provisions to the other Benevolent Institutions.

The reports of the institution show a fair proportion of cures and we have no doubt but that it is entirely worthy of the confidence of those having charge of insane persons.

We have observed the manner in which the design of the building has been carried out, and are gratified to see that there has been but little alteration from the original plan. While it is to be expected that in minor arrangements about the conveniences of different parts of so extensive an establishment there would be differences of opinion, still the propriety of the

arrangements generally have been sanctioned, even with commendation.

We can but regret, however, the short-sighted policy which has led to the abandonment of the original plan of heating and ventilating the establishment; a plan much more expensive and incomparably inferior in point of health and comfort, and even decency, as we shall proceed to demonstrate, having been substituted.

We set it down as established :

1st. That the object and great advantage of heating by hot air, is the constant change of air kept up in the apartments, by which they are kept sweet and wholesome.

2nd. That without a continual and rapid circulation of air from the heating apparatus to the apartments heated, a large amount of heat must be wasted; increasing very much the expense of heating, which, in an establishment of the size of this, is a very important item.

And we unhesitatingly assert, that without a *forced or active* ventilation, such as was originally designed, neither of these objects can be properly attained.

That our readers may understand, we will give the original plan in brief.

To heat the patients' wards a steam boiler was to be placed in a back building for each wing, connected with which a sufficient series of pipes were to be placed in a hot-air chamber so as to be kept full of steam, and consequently at a temperature of about 212° Farenheit, to give off heat enough to warm the whole wing. The air thus heated coming in freely at the lower part of the chamber from out doors and passing up to each ward through a flue 2 by 4 feet in the clear.

After very expensive experiments in varying the plan for heating thus described, those in charge have returned to it, with the exception that they make additional hot-air chambers.

But the heating apparatus thus described is very imperfect without the system of ventilation which was an essential ap-

pendage to it in the original plan, but which has unfortunately been abandoned. The abandonment was said to be in consequence of a failure to work upon first trial, which failure depended upon a slight mistake that would have been easily remedied, as we will presently show.

The plan of ventilation was to have a flue from each room, (which flues are already in the walls,) to extend to the fire that heats the boiler, so as to have a direct draft from every patient's room in the building. The mistake referred to, was in the termination of the collection of flues from the rooms, which could easily have been made under the fire, instead of being in a large chimney or shaft, by which a strong draught would be produced. This would exhaust the air from each room in the wards, as has been abundantly tested by the Mc-Lean Asylum near Boston, and at the Blockly Almshouse, Philadelphia.

Now, in as much as the greatest difficulty of heating, by hot air, depends upon the presence of the air already in the room preventing the hot air from entering it, this forced ventilation, by which the cold air is drawn off to give room for, and even call in the hot air, is an essential point. Without it, a much greater amount of fire will be required to make the apartments comfortably warm, and hence the increased expense on account of its abandonment.

By the plan of ventilation originally designed, and for which the flues were all prepared when I left the Institution, the cold air was to enter the hot-air chamber where enough steam pipes could be placed to heat it as rapidly as desired; when heated it would ascend through the large flues to the hall in each ward, from which it would be called into the different rooms and apartments through open transoms over the doors, by the exhausting force of the ventilating flues, which were to be regulated by registers at their openings; and as fast as the air become cool it would take the lower

stratum in the room and be drawn off by the flue near the floor, to give place for a fresh supply of hot air. By adjusting these registers, the different rooms could be cooled or heated at pleasure, by more or less rapidly drawing off the cold air and calling in the heated. This would have rendered every part of the establishment pleasant, and free from all offensive odors.

How men, who at one time seemed to appreciate the plan, could abandon it at once, and spend large amounts uselessly experimenting upon other and untried projects, without sending to examine or even enquiring in reference to a similar plan then in successful operation at Boston, is a mystery that we are unable to solve.

But the commissioners and superintendent together did even so, the result of which is that a passive ventilation in cold flues is all that is had; the results of which again are a difficult and imperfect distribution of the hot air to the apartments; a difficulty in getting a draught from the hot-air chamber; an imperfect change of air by which the apartments are filled to a considerable extent, with the effluvia from patients, (always vile,) and an increased expense for fuel.

But this is not all. One ward, where there is the most filth, is actually heated by the passage through its entire length of a large steam pipe! thus heating over and over again the foul air contained in it, without any except an accidental change of air. This mode of heating without ventilating in the ward for the worst class of patients renders it so foul a place that it is with difficulty that suitable persons can be induced to live in it as attendants. We hope a reform, at least in this ward, will soon be had.

The want of a system or plan in the changes that have been made under the present Superintendent, has led to a constant series of building and pulling down again at great expense.

As it is recommended to extend the buildings immediately, we would advise the employment of Dr. Bell, of Boston, or some other such person, to make a design for the additions, and enjoin upon the architect to follow out his plans, in all their details, he having system, experience, extensive and correct information upon the subject, with a sound and discriminating judgment. But as the Superintendent, in his report for 1848, says he finds the building amply large for the accommodation of two hundred patients, and only 145 having been in, at any one time yet, we should think it would be well to defer the proposed addition until the present building was full.

We had designed noticing several points in the reports, but are compelled to defer it to the next number for want of room. The large number of our subscribers in all parts of Indiana, who are directly interested in this Institution, and the importance of the subject of heating and ventilating, must be our apology for spending so much time in referring to it.

ARTICLE II.

FREE MEDICAL SCHOOLS.

The Western Medico-Chirurgical Journal, which has heretofore been much opposed to the doctrine of Free Medical Schools, has come out in their favor. We suppose the school at Keokuk, for which this Journal is the organ, is preparing to apply to the State Legislature of Iowa for an endowment. If so, we hope the people of that State, and especially the intelligent members of our profession, (a large number of whom are subscribers to our Journal, for whose information

we make this notice,) will see to it that when the Legislature endows an institution of the kind, it shall be one in which the whole profession of the State will have an interest, and not allow an endowment to go into private hands.

When Iowa, or any other State, has within its borders a city of sufficient size to afford the adequate means for medical instruction, we shall rejoice to see her properly and munificently endow and liberally sustain a free orthodox Medical School. Such an endowment should be accompanied by a provision requiring the chairs of the school endowed to be filled by concours or public trials.

MISCELLANEOUS MEDICAL INTELLIGENCE.

The N. O. Med. and Surg. Journal, takes from L'Union Medicale for Aug., 1851, notice of a case of suicide effected by Chloroform. Dr. Rayer, Physician *en chief* of the Royal Hospital of Vienna, terminated his earthly career, in the midst of his colleagues, by taking Chloroform. Up to the time of his death, his health was good and his intellect sound. He was found dead in his chamber with his nose and mouth plunged into an ætherization sac filled with Chloroform, which he had taken the precaution to fix with plaster of diachylon about his face.

Kate Dresser, 39 years old, of Schuylkill Co., Penn., has had more children than most women. The first child was born in 1829, and the last in February, 1851. She has had twins five times, and in February, 1848, had four children at one birth! making twenty-one children in twenty-one years, and six children in the space of eighteen months! The four children at a birth were apparently healthy and well formed-

One lived about four weeks, another eleven months, the third a little over a year, and the fourth, a fine boy, is still living. There are now twelve of the whole number living, seven boys and five girls!

Prof. Johnson, of Va., says two parts of vinegar to one of salt, in doses of a table-spoonfull every three hours, has been found useful in obstinate diarrhœas.

Our Ohio friends are providing themselves with splendid Medical College buildings, one at Columbus and one at Cincinnati being nearly completed.

An ounce of quinine was given to a negro at Hillsboro, N. C., in twelve hours for congestive fever. He recovered.

RUSH MEDICAL COLLEGE.

There will be a course of Anatomical Lectures, with Dissections and Demonstrations, in this Institution, by J. W. FREER, M. D., Demonstrator of Anatomy, to commence on the 23d of February next, and continue six weeks. Terms \$5.

Clinical instruction will be given in the Hospital.

OBITUARY.

Died, at Philadelphia, Nov. 10, 1851, Dr. J. M. Wallace, in the thirty-seventh year of his age.

Also in New York, on the 9th of Nov., Dr. J. K. Rodgers, one of the most eminent surgeons of our country.

Also in New York, Nov. 12, Granville Sharpe Pattison, M. D., Prof. of Anatomy in the University of the city of N. Y.

Also in New York, Nov. 21, J. R. Manly, M. D., in the seventieth year of his age.

NEW ARRANGEMENT.

At the close of the present volume of the Journal, it will pass entirely out of the hands of the present Editor and Proprietor into those of our former colleague, Prof. Herrick, with whose writings our readers are already familiar. But the accounts of the establishment that have already accrued and such as accrue with the present volume, remain in the hands of the present editor as his own private and individual property. We have a few words to say, therefore, upon the subject of arrearages at the present time, that we may be clearly understood, and that our friends who have not paid up may have an opportunity of saving one dollar for each year they may be in arrears to the Journal. By turning to the prospectus of the two last and the present volumes of the Journal, it will be seen that the terms are *three* dollars a year unless paid before the close of the volume. At the close of this volume, the last number of which will issue on the first of March next, the accounts of all delinquent subscribers will be placed in the hands of an attorney for collection, and the three dollars a year for the last three volumes will invariably be required. It will cost us at least that much more to collect them than it ought.

Now we offer to take two dollars a year up to the close of the present volume as a full liquidation of our claims against all regular subscribers who pay up before the close of this volume. It is a small amount to any one of our subscribers and may as well be paid at one time as another, and we hope to hear no complaints about paying the extra dollar per volume from those who do not see fit to take up with this offer.

L.

TRANSYLVANIA UNIVERSITY,

MEDICAL DEPARTMENT.

SPRING TERM.

THE TIME OF THE MEDICAL COURSE HAVING BEEN CHANGED,
The 34th Session will open on Monday, 15th March, 1852, and will continue for four months, under the direction of the following Faculty, viz:

Benjamin W. Dudley, M. D., Emeritus Professor of Surgery.
Robert Peter, M. D., Professor of Chemistry and Pharmacy.
James M. Bush, M. D., Professor of Anatomy.
Samuel Annan, M. D., Professor of Theory and Practice of Medicine.
John R. Allen, M. D., Professor of Materia Medica and Therapeutics.
Samuel M. Letcher, M. D., Professor of Obstetrics and Diseases of Women and Children.
Henry M. Skillman, M. D., Professor of General and Pathological Anatomy and Physiology.

Ethelbert L. Dudley, M. D., Professor of Principles and Practice of Surgery.
James M. Bruce, M. D., Demonstrator of Anatomy.

The cost of the full course has been reduced to \$70. *in advance*; to those who have attended two full courses elsewhere, \$45. Matriculation, \$5. Graduation fee, \$25. Demonstrator's Ticket, \$8. Boarding from \$2 to \$3 per week.

It

ROBERT PETER, M. D., Dean of the Medical Faculty.

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Chicago, April, 1851.

THE NORTH-WESTERN MEDICAL AND SURGICAL JOURNAL.

VOL. IV.]

MARCH, 1852.

[No. 6.

Part 1.—Original Communications.

ARTICLE I.

Cerebro-Spinal Arachnitis or Paralysis. By JAMES S. WHITMIRE, M. D., of Metamora, Ill.

In the N. W. Med. and Surg. Journal of Nov., 1851, there is an article written by Jas. Smick, M. D., of Menard Co., Ill., on one of those anomalous diseases of unmistakable Miasmatic origin, which he calls, or perhaps what the profession is pleased to call Cerebro-Spinal Arachnitis. But from what I have seen of this disease, I am disposed to consider it a partial *inertia* or *paralysis* of the Cerebro-Spinal system, from specific causes. The congested condition of the blood vessels and serum in the Arachnoid cavity, as sometimes found on post mortem examinations, may easily be accounted for on the principle of debility, from the want of h natural supply of nervous energy, instead of any direct irritating cause. Consequently the blood, forced into the enfeebled capillary vessels of the part, rendered so by the direct sedative influence of that insidious, protian poison (miasm) is retained, and the watery portions, with sometimes broken down globules, escape through the coats of the vessels as though a dead

membrane, which accounts, in some measure at least, for the sanguino-cereous fluid sometimes found on post mortem examination in the Arachnoid cavity. In cases of sudden death from this disease, Dr. Smick supposes there is either congestion or total paralysis of the great nervous centers. Now from the above view of the pathology of this disease, death cannot occur with both conditions being present in a greater or less degree. And in cases that are more mild in the commencement, with a constant repetition of the same cause without appropriate treatment, would terminate in death in a few days from the same cause, and that too without any other signs in post-mortem examination than an atonic congestion and perhaps a small quantity of serum that has made its way, as it were, through a dead membrane. I am now speaking, and so wish to be understood throughout all of those cases that are clearly referable to a miasmatic cause. For no one could imagine a case of Meningitis proper, without an active state of inflammation and tonic congestion; and there is no one so presumptuous, except Hydropathy or the little pill faculty, who would dare treat it without active depletion and other antiphlogistic remedies. It will therefore be understood there is, in my opinion, no inflammation whatever, and the signs that presented themselves on post-mortem examination were not effusion from inflammation, but an oozing of bloody serum through the unnaturally distended and paralyzed meningeal capillary vessels. That this anomalous Cerebro-Spinal Miasmatic disease exhibits its own peculiar class is undoubted, and Dr. Smick has given them very faithfully; and though I have never seen an erysipelatous inflammation follow an abatement of the symptoms, yet I can easily imagine that the condition of the system would be favorable to its developement. And though my experience in the treatment of this disease, has in no wise been as extensive as Dr. Smick's, yet it has been far more satisfactory, acknowledging

at the same time that I never witnessed the disease in an epidemic form, my cases all being sporadic and at from three to nine months intervals. Since 1845, there has been ten cases occurred in my practice, eight of which were distinctly marked cases, and exhibited the worst form of the disease; seven of them recovered, and one died.

Case 1st. Miss M. E., aged 16 years, was taken with violent pain in the head, preceded with a chilly sensation. She remained for three or four hours delirious, after which she became quite rational, but much indisposed during the night. The father being away from home, I was not called till next day, Oct. 8th. She was taken 11 o'clock, one hour earlier than the day previous. I saw her 2 o'clock P. M. She was tossing herself back and forth on the bed; layed mostly on her back, her head and feet remaining pretty much in the same place, her head being shoved down into the bed so as to almost make a complete half circle from head to feet. Pulse 100 and small, countenance pale, surface cold, extremities particularly. Talked incoherently, or rather a moaning, grumbling noise, with paralysis of the muscles of deglutition, so that it was impossible to administer medicine by the mouth. Ordered a Turpentine enema in starch with salt to evacuate the rectum; after which Sulph. Ether in starch was administered per anum: hot turpentine cloths applied to spine, breast and bowels, dry friction with soft flannel and ground mustard to the extremities, alternating with bottles of hot water. In two hours of diligent employment of these remedies, reaction began gradually to come on; in another hour she talked and swallowed, but complained of violent pain in the head, and her countenance began to be quite flushed. I opened a vein and took about 10 $\frac{3}{4}$ of blood, which gave immediate relief. I then ordered a blister to the spine and back of the neck, gave an active dose of Calomel and Jallap, and put her upon minute doses of Tart. Antimon., during the night applied cold

to the head, &c., &c., mistaking it for a case of Cerebro-Spinal Meningitis. The blister done well, bowels moved two or three times freely, and she remained quite comfortable 9 o'clock the next day, which was about an hour sooner than her paroxysm the day previous, when all the former symptoms returned with redoubled violence. I was immediately summoned to see her, and when I arrived she was in a state of *Articulo Mortis*, there never having been the slightest attempt of nature at reaction. This case being the first that I had ever witnessed, and I a young practitioner, it never once occurred to me that it might be from any other cause than inflammation of the meninges of the brain, till to my great surprise and chagrin I walked into the house and found her dead. Terminating as it did, and being strictly periodical, led me to decide on a different course of treatment the next case that came under my care, let the consequences be what they might; for it was morally certain that it could be no worse than the other, and it had done me no particular credit in the immediate neighborhood.

Case 2d. Mr. F., aged 30, of full habit and sanguine temperament, was taken March 20th, 1848, at 12 o'clock M. I saw him 4 o'clock P. M. He was in a complete state of insensibility, tossing himself from one side to the other; respiration hurried to about 40 in a minute; the whole surface cold; countenance pale; back in a tonic curve; pulse 100, and very small; eyes set back, mouth firmly closed, and could not be forced to attempt to swallow even water. This patient had been unwell for two or three weeks, and though able to go about his ordinary business, yet his usual hilarity of spirits were gone, and he expressed himself as feeling miserable, but not sick, and for two or three days previous to the attack had complained of a general feeling of fullness and pain in the head with occasional double vision. As nothing could be given him by the mouth, I ordered a stimulating enema of

Turpentine, Molasses and Salt to evacuate the rectum ; after which Laudanum and Sulph. Ether in starch was given per anus ; applied hot turpentine cloths to the spine, breast and bowels ; dry friction with soft flannel and dry mustard to the extremities, bottles of hot water, &c. In an hour he become more quiet, and the surface began to assume a more natural warmth. In an hour more he was quite comfortable, and began to question us in relation to the cause of our presence, and why so many of us were there, &c. He still complained of violent pain in the head, and his face began to be flushed, and his pulse had risen to 110 and increased in volume, but not in force. I then took 10 $\frac{3}{4}$ of blood from the arm, which seemed to relieve the pain in his head for the present, but he soon become restless and wandering and disconnected in his thoughts. Ordered blister to the spine from the inferior dorsal vertebra to the occiput, and gave five powders, each consisting of 3 grs. Calomel, 10 grs. Camphor, 10 grs. Quinine, $\frac{1}{2}$ gr. Morphia, one to be taken every two hours till next day, (21st,) when I saw him, at 3 o'clock P. M. Found him quite comfortable ; head clear except a little buzzing from the effect of the quinine. Calomel had moved his bowels, blister drew well, pulse 90 and soft. Ordered six powders, each containing 3 grs. Quinine, 5 grs. Camph., $\frac{1}{2}$ gr. Morph., one to be taken every four hours till next day, when I saw him for the last time professionally. Found him decidedly convalescent. Ordered wine and peruvian bark three times per day for three weeks, and what moderate exercise his strength would permit him to take. Recovered perfectly. I am now perfectly satisfied that venesection done this man an injury for the time, though if I had waited one or two hours longer he might have borne it better.

Case 3d. M. B., a young lady aged 17 years, of a sanguine billious temperament, florid complexion, &c. Was taken Dec. 10th, 1851, with an ague, as the family supposed

Complained of chilliness ; pain in the head, with an uneasy sensation or stricture across the chest, accompanied with difficulty of breathing ; frequent sighing and occasional involuntary coughing ; but the symptoms gradually wore away, so that in the course of two or three hours she was able to be up and attend to her domestic concerns. The next day she was taken again about the same hour, but much more violently. I was immediately sent for, but having about ten miles to ride I did not see her till 6 o'clock P. M.---at least six hours after the commencement of the paroxysm ; had been speechless and unconscious ever since. Found her writhing in apparent agony ; pulse 120, small ; surface cold, countenance pale, and would swallow anything you would put to her lips. Her head was drawn back almost between the shoulders ; occasional severe spasms of the extremities, alternating with spasmodic action of the muscles of respiration, so that she would make forty attempts in a minute to take a full inspiration, but would always be cut short by the ungovernable spasmodic action of the muscles. Gave her Tinct. Opii and Sulph. Ether freely ; ordered hot turpentine friction, &c., as in former cases. In twenty minutes after the administration of the Tinct. and Ether the irregular action of the respiratory muscles began to subside, and in three hours more she was quiet, though yet quite unconscious, save when you would speak in a very sharp tone to her, and then she would seem to notice for a moment only. I now determined to try the anti-periodic treatment without any depletion save by the bowels. Ordered a blister to the spine and back of the neck ; six powders, each consisting of 3 grs. Calomel, 8 grs. Quinine, 8 grs. Camphor, $\frac{1}{2}$ gr. Morphine, one to be given every two hours till gone. Next day (12th) I saw the patient at 4 P. M., three hours after the time for the occurrence of the paroxysm, and she was quite rational. Head clear of pain, but complained of much soreness and muscular debility, which was, no doubt,

occasioned by their spasmodic action the day previous. Bowels had moved freely; gave her seven more powders, each containing $\frac{1}{2}$ gr. Morphine, 3 grs. Camphor, 3 grs. Quinine. Her pulse was 85, full and soft. She was to take her powders every four hours till gone; after which she took wine and bark three or four times per day for a week. The convalescence of this patient was more speedy than case 2d, and her subsequent health from all present appearances, bids fair to be as good as she previously enjoyed.

The other seven cases I treated previous to the last, all on the same principle as case 3d, and with at least as satisfactory results, only thinking it proper to bleed in one case. And now, if this peculiar disease is accompanied with either primary, or secondary inflammation, I am at a loss to know why it is, that my patients are yet living. For certainly the *Vis Medicatri Natura* must have been powerful to overcome both medicine and disease. For it is a statistical fact, that at least one out of three under the Antiphlogistic treatment dies. That circumstances might occur, in which I would bleed, I can easily imagine; yet I have never had occasion to use the lancet but once since case 2d; and the principal objection I have to Dr. Smick's treatment is, that he runs too great a risk of loosing his patient in the second paroxysm, on account of not giving Quinine sooner. And I am more and more convinced of the justness of Dr. Smick's remark, that "there is no remedy that requires more caution in using it, than bleeding in Cerebro-Spinal Arachnitis." And from my own observation, I think the disease is more likely to assume a Typhoid character, from at least indiscriminate antiphlogistic measures, though that tendency has not presented itself in my practice. My opinion, however, can only go, in an intelligent profession, for what it is worth, for these are days of progress, and every thing that is presented to the public is scanned and sifted before it is acknowledged; and if there was

less fear among ourselves of controversy, we might do better for our patients too.

P. S. I am not personally acquainted with Dr. Smick, but I trust I have said nothing to offend, as it has not been in that kind of spirit I have written, but rather to invite some more of the profession to speak out.

ARTICLE II.

Neuralgia Treated by the Internal Use of Chloroform. By P.

A. ALLAIRE, M. D., of Aurora, Ill.

DR. EVANS:—If the following cases of Neuralgia, treated by the internal use of Chloroform, are deemed of sufficient interest to warrant their insertion in the Journal, they are at your disposal.

Case 1. J. L. H., aged about 40 years, of spare, but vigorous frame, of temperate and active habits, has been a resident of Northern Illinois since its first settlement. He has often suffered from the effects of malaria, but not enough to impair his general health. During the last ten years he has had many attacks of what is known as Sciatica, and for its relief has been under treatment of all kinds. During May, 1851, he first came under my care. The left limb, which had always been the seat of the disease, and was now, I found a little short, slightly everted, and its size less than the sound one; the motions are a little abridged, the effect of which is very perceptible in his gait.

The pain is dull, with occasional paroxysms of acuteness, extending over the hip and thigh, but most severe in the course of the sciatic nerve; no pain below the knee; at night

the pain is usually most severe; the warmth of the bed increases it, so that often spends whole nights in an easy chair. From the character of the pain, the absence of rheumatism in other parts, and the want of heat, tenderness or swelling in the affected limb, I viewed it as a painful affection of the nerves. The present attack having lasted some three weeks, he had exhausted the remedies which he had formerly used with most benefit, and having been at different times under the whole routine of treatment and something more, without marked results, the attacks having (to use his own words) always abated when they got ready, I resolved at once to commence with the Chloroform.

May 9th. Directed eight drops to be taken on sugar at a dose, morning, noon and night, and to increase the dose two drops each day.

May 20th. Takes now twenty-five drops three times daily; feels no unpleasant effect from the Chloroform, and finds the limb decidedly more comfortable. Directed to steadily increase the dose two drops daily.

May 29th. Takes forty drops for a dose, and says he will not go any higher, as it gives him a very singular feeling of lightness, which lasts about fifteen or twenty minutes, commencing almost immediately after the medicine is swallowed. There is but little remaining uneasiness in the limb. Directed the remedy continued in 35 drop doses.

June 10th. Says he is well, and has suspended for some days the use of the medicine. The limb feels all right. Of course he continues to limp as usual, but has no pain.

Dec. 20th. Mr. H. continues in perfect health; no return of his old enemy.

Case 2. R. D., aged 48 years, of good general health, robust and athletic; farmer, a resident of Illinois for 8 years, and during this time has had but little malarious disease. In 1847 had neuralgia of the head and face, which was cured

with Strychnine and Quinine. Since then has had good general health until May, 1851, at which time he was attacked with violent nervous pain in the back and loins. The first paroxysm lasted some four or five hours, and occurred quite regularly every week for four or five weeks, when he called on me for treatment.

June 5th. Mr. D. describes the pain as spasmodic, affecting the whole of the lower part of the back, and recurring now at irregular intervals, having no tenderness, but a feeling of weakness and numbness in the part; paroxysms vary in duration from three to six hours. His countenance has an expression of anxiety and suffering, but the various organs seem to be performing their functions in a healthy manner. The appetite is fair, except during an attack of pain.

Directed 3 grs. Mass. Hydrarg. night and morning, and 3 grs. Sulph. Quinine every two hours daily.

June 10th. Has taken the medicines as directed, and been almost daily under the influence of the Quinine, but without improvement; in fact the recurrence of pain is more frequent, and appetite not so good. Directed to increase the Quinine to 5 gr. doses, continue blue pill the same, and apply a blister 3 by 10 inches on one side of the lower half of the Spine, and when the visication had healed to apply it on the other side. Permitted to use anodynes when necessary.

June 18th. Remedies have been perseveringly used, but without benefit. Concluding that the disease was not of malarious origin, and not being able to find any structural or mechanical cause, I resolved on a thorough trial of iron. Directed the usual dose of half a drachm of the Sub Carbonate three times daily to be commenced with, and steadily increased, Morphine to be taken as occasion required, and anodyne frictions to the affected part during the paroxysms.

July 18th. Patient has lost considerable in weight—he thinks twenty pounds, looks feeble; when free from pain gets

about with difficulty ; at other times confined to his bed ; paroxysms of pain about the same ; has increased the iron to 3½ drachms at a dose ; appetite capricious, digestion good, bowels regular, alvine evacuations look well ; skin moist, no chills, no fever ; pain excited by slight exertion, or a little mental excitement. Had consultation with Dr. E., and decided to continue the iron in as large doses as he could bear, and dynes the same.

July 24th. Mr. D. left home to-day for New York, and entered a water-cure establishment ; no better when he started than at last report.

Oct. 14th. Mr. D. returned home. From about Aug. 15th to Oct. 1st, he has been subjected to the routine of a Hydropathic establishment, situate among the hills in Delaware Co., N. Y. Says he has gained about ten pounds in weight ; that the attacks of pain are not, he thinks, quite so frequent, but are of equal severity as before.

Oct. 24th. Mr. D. requested me again to prescribe for him. Finding on careful enquiry that there was no special change in the condition of his disease, I directed the Chloroform to be tried ; to begin with 5 drops three times each day, and increase the dose 2 drops daily.

Oct. 30th. Thinks he is improving ; has had no paroxysmal pain of severity since last week. Takes 18 drops three times a day. Directed him to keep on increasing the dose as before, until some unpleasant effect was produced, or he recovered.

Dec. 1st. Mr. D. called to see me to-day ; says he is well as ever he was ; that he only took the Chloroform one week after seeing me last, and never got higher than 20 drops for a dose, as it produced a very unpleasant burning sensation in the stomach.

In concluding, permit me to make a suggestion : it is, that Chloroform may prove a useful agent in various affections, in

which the nerves or their extremities may be involved, as paralysis of some kinds, epilepsy, hysteria, neuralgia, and neuralgic rheumatism. The internal use of this agent will, I believe, prove more valuable than has been supposed in nervous diseases, if we may judge from the few cases recorded; and if it should prove to be "a remedy," it will be a great boon, for their hitherto intractable nature has rendered them often a reproach to the profession.

December 20th, 1851.

ARTICLE III.

Cases occurring in the Practice of SAMUEL W. RITCHIEY, M. D., of Newtown, Indiana.

DR. EVANS:—I have often thought of reporting two or three cases which came under my observation some time since, thinking that perhaps they might be somewhat rare, and consequently interesting to the profession.

The first was a Surgical case. A fleshy boy about twelve year of age, with a basket hanging upon his arm, was shot with a tolerably large rifle ball which had been carried near two hundred yards. It entered his arm near the insertion of the Deltoid muscle, whence it passed almost directly to the bone, but inclining perhaps a little upward. Dr. Crawford (now dead) and myself having been called in the case, concluded to cut down upon the bone in search of the ball, which as it could not be felt on the opposite side of the arm, and evidently had not passed through it, we concluded would most likely be found near the front where it struck the bone. We thought, as the force of the ball must have been very

nearly exhausted, it might have slid a little round or up the bone. But upon cutting down to the bone, we were surprised to find a hole, into which the index finger could readily enter; but the ball had not passed through, and was not in reach of the finger or the probe. This hole was somewhat longer in the direction of the bone. You may not suppose our mortification was so great, as that of a distinguished Surgeon, whom I saw, a few years ago dip twice, and deep, into an enlarged *scrotum* which he declared to be a Hydrocele, and found no water; but we found we were in water, the depth of which we did not understand. Our conclusion here was, that the ball had passed to the centre of the bone, and not having force to pass through, made its way up the bone, favored by its cavity, and lodged a little above the outward opening. Trephining the bone and amputation, even, were thought of, but fortunately neither of these operations were performed. The result would have proven either of them cute, certainly. Some lines of Dr. Watts, are here appropriately suggested to my mind :

" So when a raging fever burns,
We change from side to side by turns;
And it's but a poor relief we gain,
To change the side, but keep the pain."

The wound was dressed, and in a few weeks entirely healed, and after a few months the ball was discovered under the Integuments close to the inferior Costa, about one to two inches above the inferior angle of the Scapula.

From the above account, which, so far as I can see, is exactly correct, what was the more probable course of the ball in arriving at this point? Did it enter the bone and pass out at a point some distance from its entrance; or could it drive that hole in the bone, rebound, and take its course outside?

Another case. A Mr. L. was taken with a lingering Typhoid fever in the month of June. He had some cough, and

pain in the left side, and over this same side there was great dullness on percussian. After four or five weeks he got up, but the pain and dullness still continued. He visited round for some three or four weeks, (but still feeble,) when a tumor began to show itself immediately above the Clavicle. I questioned first whether it were an Aneurism or an Abscess. I soon satisfied myself, however, that it was the latter. In two or three weeks from its first appearance, I was called to open it. A large quantity of pus was discharged. I then expressed to some of the relatives my fear that he would sink under the waste. I suspected it proceeded from the Lung, and tried to probe to satisfy myself on this point, but did not succeed. He sank down for weeks, emaciated as a man in Phthisis with a well developed hectic fever. When he died, I opened the breast, and found the left lung entirely destroyed. Nothing like lung in any state was discovered. The passage from this cavity of the thorax to the abscess in the neck was very clear, being nearly an inch in width. The right lung, so far as examined, appeared healthy. Such cases, it appears to me, are incurable, and therefore I ventured to give this report, though in some respects imperfect. This was most likely a case of Tubercular disease. Several of the family have died of Consumption.

ARTICLE IV.

Cases and Clinical Observations in the Medical Wards of the Illinois General Hospital, under the charge of N. S. DAVIS, M. D., and Prof. Path., Practice and Clinical Medicine.

Case 1st. Mr. ———, young man, sailor, aged about 20 years, native of Ireland, admitted into the Hospital.

Dec. 23d. Present appearance : Lies with his head and shoulders much elevated ; face bloated and of a leaden color ; lips purple ; tongue clean but pale ; respiration difficult, labored, somewhat asthmatic ; cough frequent, accompanied by soreness and some pain in the left side, and the expectoration of a thick, brownish, mucous ; the bowels moderately costive ; urine scanty and high colored ; pulse 100 per minute and easily compressed ; great muscular debility. Percussion gave a pretty clear sound over the whole right side of the chest, and over the left, from the clavicle down to the inferior margin of the pectoral muscles, but decided dullness over the axillary and sub-axillary and posterior inferior regions of the left side. Auscultation revealed a loud and mixed ronchus over the whole upper and central portions of both lungs. It consisted of the coarse mucous ronchus mixed with numerous dry *cooing* and whistling or hissing sounds. Over the lower margin of the pectoral muscle of the left side, a finer sub-mucous *râle* was distinct, while in the axillary and posterior regions of the same side there was scarcely any pulmonary sounds, except close in the axilla where *tubular* respiration was well marked and plain.

After allowing each member of the Hospital class to listen

to the morbid sounds enumerated, before stating the diagnosis the Professor of Clinical Medicine gave the following history of the case :

The patient stated that he had had severe attacks of Dyspnoea, soreness, and pain in his chest, every winter for three or four winters past ; that his present sickness commenced about ten days since, but did not confine him wholly to his bed until about four days since, when the dyspnoea became so great as to threaten entire suffocation, accompanied by the swollen and livid appearance of the face and other symptoms that still remain. We cannot learn that the expectoration has been at any time bloody or very copious, but rather glairy and very tenaceous. It was remarked that the history of the case together with the present symptoms and physical signs, clearly pointed out a complication of disease of great extent.

In the first place, the extensive mucous ronchus intermixed with dry bronchial sounds, over the more resonant parts of the chest, and the constricted or asthmatic character of the breathing, indicate an extensive chronic bronchial inflammation, probably of long standing and accompanied by thickening of the membrane, and consequent constriction or narrowing of the tubes. To this state of the bronchial membrane much of the dyspnoea, and livid aspect of the patient is due.

Second, the decided dulness over the lower and posterior portion of the left side, with some degree of sub-mucous ronchus especially over the margin of the dulness, and without fulness of the intercostal spaces or enlargement of the side, indicate a decided density of the pulmonary tissue of that region, from some cause. We may have unusual density of the pulmonary tissue from Pneumonia constituting hepatization ; from œdema or engorgement of the tissue more passive than that constituting true hepatization, or from *carnification* by which is meant the conversion of the naturally loose and extremely vascular tissue of the lungs into a more dense and

fibrous structure, as sometimes results from a species of chronic pneumonia. That the density in this case results from one or the other, or both of the latter conditions, is rendered probable from the absense of either bloody or purulent expectoration, which would almost certainly be present at this stage of active Pneumonia.

If we suppose the patient to have been long laboring under a slow bronchial inflammation, complicated at times during the two or three winters past, by congestions and low grades of inflammatory action in the middle and lower lobes of the left lung, we should be very likely to have that condensation or carnification of the pulmonary tissue of which we have spoken.

This would also account for the distinct tubular respiration high up in the axilla. If such a condition of the middle lobe of the lung had existed as the result of previous attacks of disease, the recent renewal of the extensive bronchial affection, and consequent dyspnœa which now exists, by interfering with the decarbonization of the blood, lowering the tonicity of the system and obstructing the pulmonary circulation, would be very likely to induce in the lower and posterior or most dependent part of the lungs an engorgement of the tissue sufficient to explain all the dulness existing in the present case, with only a very low grade of pneumonic inflammation. If these views of the nature of the case are correct, the indications for treatment are

1st. To relieve the respiration as much as possible by lessening the constriction of the bronchial tubes and facilitating expectoration.

2nd. To aid in relieving the blood of its excess of carbon resulting from the obstructed respiration, by increasing the secretions from the Liver and mucous follicles of the intestines.

3d. To remove the engorgement and condensation of the pulmonary structure, by improving general tonicity and promoting absorption.

To fulfill these indications as far as possible, the patient was directed to take a tea-spoonful of the following mixture every four hours, viz :

R. Sat. Tinct. Cimicifuga Racemosa, ʒij,
Tinct. Lobelia Inflata, ʒss,
Iodide Potassa, ʒj, mix.

In addition to this he was directed five grains of Blue Mass, to be followed by a table-spoonful of Castor Oil in the morning. Also a blister over the left axillary region.

Dec. 24th., 9 o'clock, A. M. The dyspnoea is much relieved, the lips consequently less livid ; patient lies with his head and shoulders lower, and complains of less oppression and tightness across the chest. Otherwise the same as yesterday. Continue the same treatment.

Dec. 26th, 9 o'clock A. M. Patient much improved; breathing comparatively easy, pulse slower and more natural ; bowels open ; appetite moderate ; cough less frequent, but considerable mucous expectoration, and occasional slight epistaxis or hemorrhage from the nose. He is able to take an entirely recumbent posture but pretty constantly inclines to the left side. The bronchial ronchi have much diminished, but not ceased. The dulness over the lower and posterior part of the left side, and the tubular respiration in the axilla remain unchanged. There is some œdema of the feet and ankles.

Omit the Tinct. Cimicifuga Racemosa and Iodide of Potassa and give Tinct. Sanguinaria Canadensis and Tinct. Lobelia, equal parts 30 gtt., every four hours, with five grains of Blue Mass at bed-time.

Dec. 29th, 9 o'clock A. M. Patient has continued to improve and is now able to sit up some, although the physical signs derived from an examination of the chest remain nearly the same. The ankles continue œdematous and the cough though less frequent is sometimes severe. The epistaxis is also sufficiently frequent and severe to be a source of debility.

Continue the cough mixture last prescribed every six hours, with 10 grs. of Chloride of Sodium (common Salt) between each dose of the drops. The latter was prescribed for the purpose of counteracting the evident tendency to impairment of the qualities of the corpuscles and other constituents of the blood, and to improve the tonicity of the vascular tissues.

From this time forward he continued to improve steadily in breathing, strength, cough, &c. The dullness, however, continued well marked on the lower part of the left side, and the expectoration continued considerable presenting an appearance of slight intermixture of pus. On the 1st of January a blister was again applied to his side, otherwise the same treatment continued.

Jan. 3d. Finding considerable tendency to œdema of the lower extremities whenever the patient sits up much, with a cool skin, and free perspiration, two grains of the Sulphate of Quinine were added to each dose of the Chloride of Sodium, and the treatment otherwise continued the same.

Jan. 9th. The patient has continued apparently to improve slowly. On the 7th he walked out the distance of three or four blocks to see his friends and back again; and with the exception of some cough at night, inability to lie upon his right side, and œdematous swelling of the feet and ankles, he declared himself quite well. Still the dulness on percussion, the tubular respiration in the axilla, remained, but the bronchial ronchi had mostly disappeared. This morning he rose from his bed as usual, dressed himself, walked about the ward, but soon began to complain of a sense of suffocation, his breathing became rapidly laborious, his lips livid, his extremities cold, skin covered with a cold sweat, and just as the Prof. of Clinical Medicine entered the ward for the regular morning visit, he expired, apparently from suffocation. The whole period from the attack in the morning until death was little more than one hour.

Post Mortem : Twelve hours after death. Outward inspection. The chest and abdomen full and the intercostal spaces prominent at the upper part of the chest ; emaciation moderate, and slight œdema of the lower extremities.

On opening the chest by raising the sternum, the upper lobes of both lungs presented themselves very strongly distended with air, constituting a true and extensive emphysema, which explained clearly the sudden death. The mucous membrane of the larger bronchial tubes on both sides was found injected, thickened and in places ulcerated. The tissue of the right lung was otherwise little altered from a healthy condition. On the left side, old and tough pleuritic adhesions existed to such an extent as to make it difficult to remove the middle and lower lobes from the chest. The whole lower lobe of the left lung was dense, heavy, inelastic, dark red color, and when cut into, was found in a semi-hepatized condition with here and there points of suppuration established. The central portion of the left lung, that which corresponded with the axillary region, was very closely adherent to the walls of the chest, and had been converted into a dense whitish, inelastic tissue, destitute of crepitant feel, or any appearance of infiltration. It was only slightly permeable to air, and was plainly the effect of previous disease. It was doubtless the density of this altered tissue with its close adhesion to the walls of the chest, that brought the larger central bronchial branch so near the ear as to give the plain tubular respiration heard in the axilla before death.

The heart was found moderately hypertrophied, with half an ounce or ounce of serum in the pericardium. The valvular strictures of the heart were perfectly natural, but both ventricles were filled with a firm clot of fibrin, from which the serum and red-corpuscles had been removed. In the left ventricle especially, the fibrinous clot was large, very white, and so firm that it might almost be stretched out into laminæ like

a sheet of membrane. The formation of these clots, the nature of the morbid changes which had taken place in the lungs, the correspondence between the morbid appearances and the indications furnished by the symptoms and physical signs during life, and the extent and sudden occurrence of the emphysema, were fully explained to the Hospital Class present. But these are points that will appear too obvious to the reader, to need detail here.

Case 2d. Mr. M——, aged 35 years, native of Ireland, habits intemperate, admitted to the Hospital Jan. 6th, but was not seen by the Prof. of Clinical Medicine or the class until the regular hour for Hospital visit on the morning of the 7th. The attention of the class was first called to the position and aspect of the patient. He was bolstered up so as to assume nearly a sitting posture; his face pale with an anxious expression; his breathing short and rather hurried; his feet and ankles œdematous; with considerable swelling and tenderness of all the articulations from the second joint of the fingers to the shoulders, and from the lumbar region downward to the knees. The wrists and back of the hands were also œdematous, pitting freely on pressure. His pulse was 110 per minute, tongue slightly coated, no appetite, frequent distressing cough, paroxysms of great oppression and distress in the region of the heart; bowels inactive, and entire inability to move, with severe pains in the back, hips, arms, hands, and chest. The patient stated that he had been sick with Inflammatory Rheumatism about ten days, and had been directed by his physician to drink freely of sour milk and soda. The urine was scanty and high colored, but gave no traces of the presence of albumen. It was very evident, remarked Prof. D., that the patient has been laboring under the influence of severe Rheumatic Inflammation for several days, and which still continues to affect many important articulation. But this is not all. The tendency of the patient to keep the sitting posture or even

to lean forward, the short respiration and cough, the paroxysms of severe oppression in the cardiac region, with the tendency to general anasarca, point very strongly to a pericardial or endocardial complication. On applying percussion, the cardiac dulness was found to occupy a larger space than natural; and auscultation revealed over the base of the heart, both a plain rubbing or friction sound, and a bellows murmur that almost entirely obscured the second sound of the heart. A degree of mucous ronchus indicating considerable bronchial inflammation was heard over the upper part of the left lung. After permitting each member of the Hospital Class to listen to these morbid sounds for himself, it was remarked that they pointed out plainly and unequivocally what we might suspect merely from the general symptoms, viz: the existence of Pericardial and Endocardial inflammation. This species of cardiac inflammation is by no means uncommon in connection with rheumatism of an acute and sub-acute grade; a fact which should always be borne in mind by the practitioner when treating the latter disease, as a failure to detect it, may lead either to an unexpectedly fatal result, or to such alterations of the membrane lining the heart and constituting the cardiac valves, as to constitute permanent organic disease.

Prognosis: Acute and sub-acute articular rheumatism very rarely terminates fatally. And even when complicated with Pericarditis or Endocarditis, if rightly understood and properly treated in the early stage, the prognosis is generally favorable. In patients of intemperate habits, however, like the one before us, or where the proper treatment has not been applied in the early stage, life may be cut short by the rapidity and extent of the pericardial effusion, or by the softening or impairment of the substance of the heart; or what is more common the valves and internal lining of the heart become permanently thickened, slowly producing hypertrophy and other incurable organic changes.

Treatment : In this case, the period when a free bleeding followed rapidly by full doses of Calomel and Opium, would speedily subdue both the rheumatic and cardiac inflammations, has passed by. The pale and œdematous appearance of the patient, the small and frequent pulse, and the intemperate habits all forbid any abstraction of blood. The indications now are, to allay the excessive irritability by sedatives, and arrest as speedily as possible the pericardial and dropsical effusions which have already begun, by promoting absorption and diuresis. To accomplish these objects the patient was directed to take the following, viz :

R. Sat. Tinct. Cimicifuga Racemosa, ʒjj,

Iodide Potassa, ʒj, mix: one tea-spoonful every four hours ; also, Pulv. Doveri, 10 grs., and Blue Mass, 5 grs. at bed-time, with a blister over the cardiac region.

Jan. 8th, 9 o'clock, A. M. Patient suffers less pain, both in the chest and extremities, otherwise symptoms not materially altered. Continue same treatment except the powder at bed-time, which was made to contain Pulv. Doveri, 10 grs., Nit. Potassa, 15 grs., and Calomel, 2 grs.

Jan. 11th. The treatment mentioned on the 8th, has been steadily continued, with a well marked beneficial effect. The œdema of the extremities has disappeared ; the pain and swelling of the articulations have very much abated ; the pulse is slower, but the breathing is still short with considerable cough and expectoration. Percussion also gives well marked cardiac dullness over too large a space, but the bellows murmur and the friction sound have nearly disappeared. In their place, however, we have less cardiac impulse, and the sounds of the heart apparently more remote from the ear, indicating the existence of considerable pericardial effusion. The patient is pale, complains much of debility, and the pulse is feeble. Discontinue the Iodide of Potassa and Tinct. of Cimicifuga, and give Citrate of Potassa, 15 grs., with Pulv. Doveri. 10 grs., every six hours.

Jan. 14th. Symptoms of cardiac disease almost entirely removed, and the appearance of external rheumatism slight. But there is pretty copious expectoration, much debility, with periods of profuse sweats. The bowels were also too loose and the evacuations watery. Ordered three grains of Sulph. Quinine to be added to each of the powders as previously taken, and the bowels to be restrained by the following emulsion, viz :

R Oil Turpentine, 3jj.,

Tinct. Opii., 3jj.,

Gum Arabac and White Sugar, each 3ijj., rubbed thoroughly together with water 3ijj., of which a tea-spoonful may be given as often as the bowels move.

Jan. 17th. The evacuations continue watery and foetid, abdomen moderately tympanitic, and an increase of the external rheumatic pains. The pulse was also more frequent and irritable, and more bronchial irritation and cough. The physical signs indicated no increase of cardiac inflammation, and the extent of dullness was not much greater than natural.

The increase of the bronchial and rheumatic irritation appeared to be produced by the Quinine acting on a bad condition of the bowels. All previous medicine was discontinued and the patient directed the following powder every four hours, viz :

R Pulv. Doveri., 10 grs.,

Nit. Potassa., 10 grs.,

Calomel, 2 grs., mix ; with a blister again applied to the left side of the chest.

Jan., 18th. Discharges from the bowels much changed, abdomen less tympanitic, breathing and cough easier. Omit the powders with Calomel, and order the following, viz :

R Citrate Potassa, 15 grs.,

Pulv. Opii., 1½ grs., mix. Give one powder morning, noon, and tea-time ; with the following powder at bed-time, viz :

R. Nit. Potassa, 15 grs.,
Pulv. Opii., $\frac{1}{2}$ gr., mix.

Jan. 26th. Since the 18th, the patient has steadily improved. The cardiac and rheumatic symptoms have entirely disappeared. The patient, however, is anemic, somewhat emaciated, and still coughs and expectorates considerable opaque or semi-purulent matter. While making the free use of Opium as prescribed on the 18th, his bowels required moving occasionally with Castor Oil to which was usually added Oil of Turpentine. A third blister was also applied over the left subclavicular region on the 23d inst. The patient was now ordered, simply a table-spoonful of Cod-Liver Oil with ten drops of Acetum Opii, three times a day with nutritious diet. Under this he improved rapidly, and at the present time, Feb. 10th, is quite well and walking about the ward.

ARTICLE V.

Poisoning with Per Chloride of Mercury. By W. W. GOFF, M. D., of York, Michigan.

I send you the notes of a case of poisoning with this preparation, which occurred in the practice of Dr. Bowers, of this place.

W. Richards, aged 22, nervous sanguine temperament, good constitution, a farmer; on the 28th of August last, being

slightly indisposed, thought to take some salts, and says he took a spoonful dissolved in water, of what he supposed to be Epsom Salts. Soon after swallowing the dose, he felt heat and burning in the fauces and stomach, with sickness and anxiety; on some examination he discovered that he had taken Corrosive Sublimate. In the consternation of the moment he swallowed three or four ounces of Castor Oil, and more or less Boneset tea, for the purpose of inducing vomiting. This not producing emesis he started for the Drs. office, a mile and a half distant; at which place I saw him, in consultation, at 3 o'clock P. M., an hour and a half after the poison was swallowed. At this time his face was swelled, somewhat livid; lips purple and swelled; eyes suffused and bloodshot; with great difficulty in articulation. Dr. B. had administered an emetic of Ipecac, the influence of which he was under at the time; its action was assisted by copious draughts of warm water, and full emesis was soon induced; the retching continued for some hours after the proper action of the emetic, with ejections of thick tenacious mucus; probably this came as much from the first passages, as from the stomach. At this time pulse small, almost thready; great anxiety of countenance, and pain in præcordium; surface warm; tongue some enlarged and completely coated with slate colored fur.

As soon as he was free of the emetic, albumen—whites of eggs and flour, was freely administered. The eggs and flour were beat together, and he took as much as he could keep down. Two dozen eggs were given during the first three hours, and two dozen more, that night and the next day. After the first dose the symptoms abated gradually; less nausea, less retching and anxiety. The bowels moved while he was vomiting, and he had several dejections during the afternoon, very fetid. The albumen was continued, with short intervals during the afternoon and evening; also milk to drink.

At 6 o'clock some reaction was evident, and the patient was

allowed cold water freely ; thirst was a constant symptom ; but fluids were allowed but sparingly, on account of the tendency to vomit, when the stomach was distended.

The next day profuse salivation was present, swelling of the parotids, &c., also watery diarrhoea, with some admixture of blood, and shreds and patches of mucus membrane, with tenderness of the abdomen. These symptoms were treated with astringents and fomentations, and continued for several days.

The patient soon recovered his usual good health, and is now enjoying a honey moon with a loving bride.

York, Michigan, Feb., 1852.

ARTICLE VI.

Case of enlargement of one the ethmoidal cells resembling exostosis of the Orbit. Operation---Recovery. By DANIEL BRAINARD, M. D., Prof. of Surgery in Rush Medical College, etc.

May 3d, 1851. Murphy, a robust young man from Bureau Co., Ills., aged about 20 years, applied to me on account of a tumor in the orbit, causing a protrusion of the right eye. The globe of the eye was pressed forwards so that the lids could be closed with difficulty and outward so as to come firmly in contact with the external margin of the orbit. At the internal canthus was felt a hard bony tumor extending from the

side of the nose outward three-fourths of an inch. It was about two inches in length and curved to conform to the shape of the orbit.

It was first perceived about three years previously, had steadily increased in size, and been unattended by pain, or any discharge from the nostril. Movements and function of the eye perfect. As it was on the point of destroying the usefulness of the eye and had already produced great deformity I determined to attempt its removal.

Being prepared with suitable instruments for removing an exostosis, I raised the integuments by a semi-lunar incision and was proceeding to denude it when carrying the knife with force against the external side it penetrated a bony shell and revealed its contents which was of thick yellow mucous like the inspissated mucous of the nostril. The bone scissors and gouge were then employed to remove the anterior wall when a cavity of the size of a hens egg was revealed. It extended behind the root of the nose to the inner side of the left orbit backwards about two inches, was filled with tenacious yellow mucous without odor and lined with fine polished mucous membrane perfectly healthy. Next the globe of the eye the wall was very thin.

A free opening was made into the nostril at the lower part of the cavity and a tent inserted to be withdrawn when desired, by the nostril, and the wound closed with stitches.

On examining the contents and finding it inspissated mucous the nature of the case became obvious; it was an enlarged ethmoidal cell distended to its present size by the secretion of mucous prevented from escaping by the closure of its orifice. How long it had existed before being detected it is impossible to say, it is not unlikely it may have been congenital. It is obvious that an early opening from the nostril would have arrested its growth but its true nature had not been suspected by any one who had examined it and I am not aware that a similar case has been noticed before.

The external wound healed in a week and the patient returned home perfectly cured with the exception of a derangement of the lachrymal apparatus which allowed the tears to flow over the cheek.

Chicago, Jan. 31, 1852.

ARTICLE VII.

On the Treatment of Ununited Fracture by sub-cutaneous perforation of the bone, with a Case By DANIEL BRAINARD, M. D., Prof. of Surgery in Rush Medical College.

No one acquainted with either the literature or the practice of Surgery will doubt that our knowledge of the treatment of false joint is extremely imperfect. The published cases and statistical tables prove this; but it is rendered still more evident by the far greater number of uncured and unrecorded cases to be met with in practice, in the more remote sections of our country. These but a small proportion of which fall under the notice of a single person, would form if they could be collected together an array calculated to weaken our confidence in the means usually resorted to for their cure. I have been led to this conclusion from having during the last fourteen years met almost yearly with one or more cases of the kind and from having found that they present themselves to, such of my professional friends as I have had opportunity of consulting on the subject.

These cases are in this country almost invariably treated by the seaton and when this is unsuccessful they are given up as hopeless. Of four cases which have presented themselves to

my observation during the current year two were of that kind. One of these of the arm was of eleven years standing, the seaton had been used a year without benefit; the other will be given in detail.

It is greatly to be regretted that Dr. Physic whose experience with the seaton must have been extensive, did not have a record of its results. It is asserted on the one hand he lost confidence in it. This is denied on the other hand by Norris, who had every means of information, who says: "We have authority for stating that up to the period of his death, Dr. Physic *always* advocated the treatment of these cases by the seaton." * Nevertheless, we find in the same article, that "The caustic potash has been successfully used in three or four cases by Dr. J. R. Barton of this city in one of which" of the leg, "Dr. Physic discouraged the use of the seaton for fear of its failure." Gibson also states, that Dr. Physic discouraged its use in cases of fracture of the femur.

I make these remarks not from a disposition to undervalue the seaton, which is probably the most useful means yet known but to show that it is not universally successful or applicable to all cases. Dr. Norris in the article referred to, which is the best source of information to which I could refer, says that, "in the femur it has often failed." I was myself in the habit until about four years ago of abandoning most cases in which the seaton had failed not choosing to resort to resection or amputation. In 1848 I treated a case successfully by passing a silver wire around the ends of the fragments. Further reflections suggested different modes of treatment which I have applied.

A little reflection will, with the aid of our present knowledge of pathology, convince us that the seaton is not calculated to be generally successful.

* Amer. Jour. Med. Science, Vol. 3, New Series, pp. 55.

The first condition most favorable for the production of calus is the effusion of a *blastema* which should not be converted into pus and dischargal.

The second is, that this blastema should be in contact with a freshly wounded surface of bone—the law of “analagous formation” holding good here.

“The blastema between areolar tissue becomes areolar tissue at the extremity of divided nerves it forms nervous substance, &c., (Vogel.)

Now the seaton necessarily causes the conversion of the effused blastema into pus while its introduction produces no freshly wounded surface of bone ; the case is converted into a compound fracture where it was desirable to only re-produce a simple one.

Can such cutaneous wounds of bones be made without danger of seppuration ? To determine this point I at different times perforated all the principal bones of the members of a dog and did not find that suppuration in any case resulted.

Case treated by perforation of the ends of the bones—

Allcott Barnes, aet. 26 years, received June 10th, 1850, a simple fracture from being carried by a belt around a shaft. It was dressed by Dr. Hawley of Yorkville, Mich., two splints being properly applied. The dressing was changed perhaps once a week for eight weeks when the ulna was found to be united but the radius was not. A simple bandage was placed about it for four weeks when he consulted Dr. White of Kalamazoo, who put on carved splints for a month, when finding no sign of union he put through a skein of silk for a seaton which was allowed to remain three weeks. It caused much pain and suppuration. When the seaton was taken out a bandage was put about it for a week, when splints were applied and continued five weeks. They were then taken off and no union found to have taken place. Such was the account given by the patient himself.

Feb. 4th, 1851. Ununited fracture of the radius found above one third of the distance from the wrist to the elbow, partially overlapped, oblique, moveable, and the hand of little use.

Operation.—Having provided several *brad awls*, such as are used by shoe-makers, and had them well tempered and tried on dry bones, I carried one of them through the skin opposite the fracture and by movements of partial rotation perforated both fragments where they overlapped. The awl being then withdrawn from the bone, (but not from the skin,) was directed obliquely upward, then obliquely downwards so as to make three perforations. It was then entirely withdrawn, and collodion put upon the puncture of the skin. The member was dressed with the immoveable apparatus. Some tenderness was the effect.

Feb. 17th. The tenderness having subsided I removed the bandage, repeated the operation in the same manner, choosing a different point of puncture and re-applied the dressing.

March 11th. Repeated the operation again and dressed as before, mobility scarcely perceptible.

March 21st. Dressings removed, union perfect.

The dressings were in this case continued on near seven weeks, but it is probable the last perforation and dressing might well have been omitted.

The occurrence of union in so short a time where the season had failed and with no operation which interfered with the comfort or amusement of the patient, was a most favorable result, but not different from what was anticipated. I do not know that this sub-cutaneous perforation had been used by any one. Perforations by incision and inserting pieces of metal have been tried. I myself treated a case in this manner. It was on a man 36 years of age, who had long deposited phosphatic gravel in the urine, and in his youth been affected with necrosis of the femur. It was near the middle of the femur, and the fragments extremely moveable.

Sept. 20, 1850. I made an incision an inch in length over the false joint and down to the bone. I then perforated the extremity of each fragment with a *bitt*, and putting in a director from a pocket case dressed the limb in the angular apparatus for the lower extremity. The director was taken out in about ten days.

In this case the dressing was removed in eleven weeks and the patient was able to walk at the end of four months. At the present time (Jan. 1852,) he is pursuing an active occupation with a good limb.

Notwithstanding the favorable result of this case it must be admitted that the symptoms were severe, like those resulting from resection. Such were they also in the case treated by the wire, so that although it seems probable that in both these cases the result was at least as favorable as could be expected from resation, it is also true that the danger incurred is not materially less.

In all these cases the operation is severe, while the sub-cutaneous perforation is free from danger and reasoning from the analogy of simple fractures, or judging from the result of a single case, promises to be much more efficient.

Chicago, Jan. 25, 1852.

ARTICLE VIII.

Ligature of the Formeral Artery, for Popliteal Aneurism—Recovery. By DANIEL BRAINARD, M. D., Prof. of Surgery in Rush Medical College, etc.

A negro sailor, aet. 25 years, has noticed for about three years a pain in the ankle and back part of the leg, but only noticed a swelling in the ham about ten months ago. Such were the only facts I could gather on account of the obstuseness of his perceptions.

Jan. 12, 1852. The aneurism of the right limb occupied the popliteal space and formed a mass behind as large as the knee in front. Cold and compression have been attempted but abandoned on account of the indocility of the patient, who having no idea of the danger would submit to little restraint.

Operation performed in presence of the Class at the College, the ligature being applied about the middle of the thigh upon the femoral artery.

Nothing unusual occurred after or during the operation. No coldness of the foot followed and no pulsation returned in the tumor.

Jan. 23d. An abscess which had formed above the wound in the thigh opened into the wound.

Feb. 13th. Ligature came out.

Feb. 23d. Wound healed; swelling subsided. Tumor firm, about half its size before the operation, and diminishing.
Chicago, Feb., 1852.

ARTICLE IX.

Aconitum Napellus. By JOHN A. PRESTON, M. D., of Hartland, Wisconsin.

My attention was first called to this medicine by Dr. Cook, of Laghator, L. I., formerly House Surgeon in the N. Y. city Hospital. Subsequently I was made more freely acquainted with its merits by an article published in Rankings' Abstract Vol. 1, No. 2, pp. 344, 346, to which I would refer your readers for a more extended notice. A description of the several varieties of the plant will be found in the U. S. Dispensatory. There is but one species indigenous in this country, the *A. Uncinatum*, named from the hook-shaped extremities of its palmato leaves, and readily recognised by its beautiful violet-hued hooded blossom. The green leaves of this species are very acrimonious, leaving upon the tongue and fauces when chewed, the stinging sensation peculiar to the other species, and closely resembling the effects of the *Arum Americana*. If the root of an indigenous species should prove upon trial to be as acrid as the leaves, I doubt not it might be found an efficacious and economical substitute for the imported article. The *A. Napellus* is undoubtedly one of the most powerful and reliable of the acro-narcotics. Its action upon the nervous system in medicinal doses is that of a direct sedative. It differs from Opium and its preparations, in being more concentrated and uniform in its action. Another advantage which it possesses over that drug is its freedom from any tendency to unduly excite the nervous system, or to produce constipation. As my experience has been entirely confined to Fleming's Tincture of the root, I shall not advert to the officinal preparations.

Dr. Fleming, the author of the paper above alluded to, prefers the tincture from its greater uniformity of operation. Its sedative action upon the heart and arteries would point to its use as a powerful antiphlogistic in fevers, and a large class of inflammatory diseases. It has not, however, come into general use as an antifebrile among regular practitioners. It is, I apprehend, better known, and more generally appreciated by the disciples of Hahunemar. His Mother Tincture, as it is called, is prepared with equal parts of the fresh juice of the root and alcohol, a preparation which probably very closely resembles Fleming's Tincture. This potent remedy, I had good means of knowing, they use in such doses as would greatly scandalize their illustrious master. It was the more particular purpose of the writer in this brief article, to call the attention of the profession to the use of the Aconitum as an anti-neuralgic. Neuralgia in its various forms has been not less the *opprobrium medicorum* than rheumatism with which it is so closely allied. To say that we have a specific for this disease in the Aconite, might savor too much of enthusiasm or dogmatism, yet I will venture the assertion that the cases of pure neuralgia which will not yield to its use, will be exceptions few and far between. I have now used it for five years, during which time I have repeatedly exhibited it in various neuralgias, and other neuropathic diseases, and have yet to find a case which it will not cure. I have often prescribed it in Rheumatism, and have rarely failed to obtain good results. I have witnessed the happiest effects from its long continued use in neuralgia of the heart, after other approved remedies had signally failed. I have recently prescribed it for a gentleman, who, for three years occasionally suffered from excruciating pain, which he referred to the back part of the head and neck. Various remedies had been prescribed without relief; anodynes, blisters, cathartics and the whole routine of an antiphlogistic course had been several'y tried, and all

proved equally inefficient. The disease would generally take its own course during these severe paroxysms, and gradually exhaust itself. The constitution was very much impaired by these frequent and violent attacks, and the faculties of the mind were more or less compromised. The variety of means which had been resorted to, together with the character of the medical gentlemen who had prescribed for the case, had induced the patient, who was an intelligent man, to believe that nothing could be done for his relief; and it was with little faith that he heard my suggestions. I ventured modestly to assure him that, so far as his disease was of neuralgic origin, the Aconite would cure it. He yielded to my solicitation and commenced the use of Fleming's Tincture, taking ten drops three times a day; gradually increasing the dose if it should be found necessary to 20 drops. I had the satisfaction of seeing the gentleman at my house some four weeks from this time, and received the assurance that he had not been so well for several years. He was looking hale and robust, and was free from the neuralgia.

I am in the habit of prescribing it in the low agues so common in our Western country in paludal districts, and in such cases its efficiency is remarkably increased by being given in combination with Quinine. As many of your readers may be unable to find the formula for its preparation, I will transcribe it as given in Ranking :

“Take of root of *A. Napellus*, carefully dried and finely powdered, 16 ozs. Troy, rectified Spirit 16 fluid ounces; macerate for four days, then pack into a percolater; add rectified Spirit until 24 ounces of Tincture are attained.”

It is beautifully transparent, of the color of sherry, and the taste is slightly bitter. The average dose is five minims (about 10 drops) three times daily, though I have given as many as twenty drops three times a day in a case of severe sciatica with no unpleasant results.

Feb. 16th, 1852.

ARTICLE X.

Dislocation of the Femur into the Obturator Foramen. Reduction by a block between the Thighs after the Pulleys and Jarvis' Adjuster had failed. By DANIEL BRAINARD, M. D., Prof. of Surgery in Rush Medical College, etc.

Sunday, Feb. 23, 1852, I was requested to visit Michael Sweeney near Michigan City, in Indiana, on account of a dislocation of the femur, which had occurred the Friday previous.

Feb. 20. I arrived there on the evening of Monday, 23d; I found a dislocation of the right femur into the obturator foramen with all the signs of that accident extremely well marked. Efforts at reduction had at first been made by the attending Physician without success. Subsequently the compound pulleys had been resorted to and this not being effectual, "Jarvis' Adjuster" was employed without any better result. As these means had been used by Prof. Daniel Meeker, late of the Indiana Medical College, to whose politeness I was indebted for the call to visit the case, I presumed that more efforts by such means were not advisable and accordingly sought for others.

I had for some time been of the opinion that a wedge between the thighs kept close to the perinæum and sufficiently large to fill up the space, might be made use of as a fulcrum and the members themselves employed as levers by which that accident could be remedied.

At first the right femur was directed so much outward as to prevent this from being employed to advantage, and the pulleys were applied at the ankle to make extension nearly in

the line of the axis of the body. Having continued this moderately about 20 minutes, until the members were more nearly in a parallel position, I placed a stick of wood about 4 inches in diameter wrapped about with several layers of a wadded quilt, between the thighs, and relaxing the pulleys, siezed one of the legs, while Dr. Everett, who rendered efficient assistance, held the other, and by simply pressing them together, taking care to keep the knees straight, the bone went into its socket with a loud snap.

This form of dislocation is said to be the least difficult of reduction of all those of the hip, but it is probable that there are exceptional cases where a variety of means might be desired. In such the method used in this would be applicable, and it is not improbable that it might be as well to resort to it in the first instance.

Chicago, Feb. 26, 1852.

ARTICLE XI.

Use of Diluted Pyrloigneous Acid as a Gargle. By JOHN EVANS, M. D., Prof. of Obstetrics, &c., in Rush Medical College.

I have for several years been using diluted Pyroligneous Acid as a gargle in cases of inflammation of the fauces and tonsils with better success than any other article that I have prescribed.

I put a teasposnful of the Acid obtained from the shops into a wine glass of water and direct the patient to gargle the throat frequently with it.

In the sore throat caused by exposure, so common throughout the country, it generally relieves the soreness and stiffness felt in swallowing very promptly.

In chronic inflammation, with or without ulceration, of the throat, I have found it a very valuable remedy.

In the sore throat of Scarlatina it has generally afforded a very prompt amelioration of this symptom of the disease.

In several cases of habitual tonsilitis, by using this gargle freely at the commencement of the disease, I have been able to arrest the progress of the inflammation and secure a resolution.

Its use is not unpleasant ; it is safe, even if used for hours continuously, and has an additional advantage in removing the fœtor of the breath.

Part 2—Reviews and Notices of New Works.

ARTICLE I.

Transactions of the American Medical Association, Instituted 1847. Vol. IV., pages 677 octavo; Philadelphia. Printed for the Association by T. R. & P. G. Collins, 1852.

We are glad to receive this volume in which is made a permanent record of all the important improvements made in our great and growing country for the past year.

In looking over the able reports of the standing committees we are forcibly struck with the rich treasures of science therein presented, which have been gleaned from the various sources of information through which they had been scattered during the year. They are here made accessible and rendered permanently convenient for study and future reference. But the gratification which we feel on this account is marred by the reflection that the series of these reports has been interrupted by the abolition of the standing committees of the Association. And unless again restored we shall hereafter allow an account of our *improvements* to remain scattered through the various channels of information as they were previous to the organization of the Association; many of them to be lost or only occupy a local place. In the notice we gave of the proceedings last summer we expressed our regret for this movement, and the perusal of the reports in the volume before us but strengthens our convictions of the impropriety of the move. We have however, but little doubt that upon realizing the loss of these valuable documents, the Association will retrace this step and speedily re-establish, at least, the more important of the standing committees.

As we gave in the July number of our Journal a pretty full notice of the proceedings of the Association, the minutes of which occupy the first forty-four pages, we proceed to notice the reports and papers that form the remaining portion of the volume before us.

The first of them is the report of the Committee on Medical Sciences by Bennett Dowler, M. D., of New Orleans, chairman. This report, like all of the productions of its distinguished author, is a well written and sensible document. However, on account of its necessary want of originality it falls far short of possessing the interest that attaches to most of his writings.

After his introductory remarks Professor Dowler takes up his subject and discusses it in the following order. 1st., Under the head of Anatomy and Physiology, what has transpired that is new in this country is noticed. 2nd., Illustrations of Cerebral and Spinal Physiology—Monstrosities and Traumatic Lessons. 3d., Medical Chemistry—Pharmacy—Therapeutics—Pathology and Miscellaneous Memorandas; and 4th, Numerical Medicine.

There are three papers appended to the report, the first by Henry F. Campbell, M. D., of Georgia, reporting a remarkable case of Amaurosis, illustrating the anatomy of the Optic Nerves. The second, being a report on Lead Poisoning made to the Physico-Medical Society of New Orleans, by Drs. Jones, Axson and Riddell.

The third being Miscellaneous Memoranda by the author of the Report.

Next in order comes the able report of the committee on Practical Medicine by Prof. Flint of Buffalo, chairman, which was printed and laid before the Association, a pretty full notice of which we have given in a previous number of the Journal.

To the Report there are four pages appended. The first of these is an exceedingly well written report of the Cholera, as it appeared and prevailed in Cincinnati, in the year 1850, by Geo. Mendenhall, M. D. Although the author gives his facts without any arguments on the subject of the communicability of the disease, many of them bear very strongly in favor of the doctrine.

While many cases occurred after the disease became epidemic for which no cause could be made out, its introduction to various parts of the city from boats arriving from New Orleans where the disease prevailed when they left; and its first prevalence being along the river are facts that should outweigh a very large amount of negative evidence.

The fact that Small Pox prevailed at the same time, and large numbers of cases could not be traced to any source of contagion seems to be a very strong hint that inability to trace all cases of supposed contagious diseases to sources of infection should not weigh much against positive evidence of communication.

It seems strange to us that men of intelligence should continue to seek for local causes for a disease that spreads so regularly from place to place and the invasions of which are at such remote intervals of time as Cholera, when no local circumstance or condition has ever been found to correspond with these facts.

Dr. Mendenhall has done the cause of Science good service by this paper which will add much to his already high reputation.

The second paper is a Report of the Fevers, &c., of New Orleans, by E. D. Fenner, M. D., of that city. It gives a brief but very clear account of the prevalence of Cholera in New Orleans during the year 1850, and of a number of Fevers that prevailed there.

The third is on Dengue compiled from the accounts given by Prof. Dickson and Dr. Campbell of Augusta, Ga.

The fourth is an account of an epidemic which prevailed in Alleghany Co., N. Y., during the autumn and winter of 1850, and 1851, by Dr. R. F. Stevens, of Ceres, N. Y.

The Report on Surgery by Prof. Paul F. Eve, of the University of Nashville, Tenn., is worthy of the high reputation of its distinguished author. But our limits will not permit an analysis of the document.

To it are appended three papers; the first is a report of six additional cases of Œdematous Laryngitis successfully treated by scarifications of the Epiglottis and Aryteno-Epiglotic Folds. By G. Buck, Jr., M. D., of N. Y., who, it will be recollected, reported his treatment by this method in a former volume of the Transactions.

The second paper is a Table of all of the known Operations of Ovariectomy from 1701 to 1851, comprising 222 cases, with a synoptical history of each case, by Prof. Atlee, of Philadelphia, and is a very valuable table.

The third is on the Surgical statistics of New York Hospital. By Dr. Lente, Resident Surgeon at the request of John Watson, M. D., attending Surgeon.

The Report with these papers forms a large and most valuable document, a copy of which we are glad to possess.

The Report on Obstetrics by D. Humphreys Storer, M. D. of Boston, is a full compend of the improvements and suggestions in this department of our Science during the year.

We have space only to refer to the remarks of the author upon the "extractor," invented and laid before the Profession by the editor of this Journal at the meeting of the Association in Cincinnati, in 1850.

By these it would appear that the author has formed an unfavorable opinion of the instrument and the arguments used in its favor.

1st. The author thinks the straps liable to injure the child.

2d. He objects to the suggestion that we may apply the instrument before the os-tincea is dilated large enough to allow the head to pass.

3d. He intimates that no cases could occur where delivery would be "proper or practicable before labor had commenced."

4th. He conceives the only cases where the Extractor could be advantageously applied would be where labor was protracted on account of deficiency of Uterine action.

5th. He thinks that even here, on account of compression of the head being possible by the forceps, they would be preferable to the Extractor.

As to the straps injuring the head of the child, we can safely say that in no instance have the impressions they make been permanent even where strong and long continued force was necessary to effect delivery. And the substitution of ribbons, made strong for the purpose in place of braids will still farther remove the liability as they will keep their width during the application of force.

In regard to its application before the full dilatation of the os tincea, we would simply remark, that in a case of violent puerperal convulsions occurring in the first stage of labor last summer, we applied the Extractor with facility, when the os tincea was only dilated to the size of two inches in diameter, and secured not only its speedy dilatation by gentle extractive force, but in a short time delivered with entire safety to both mother and child.

In cases of violent hemorrhage before labor commences, and in convulsions also, we conceive it might be altogether "proper and practicable" to induce labor and delivery. And we have no doubt that in such cases the "Extractor" will be found to be applicable, gentle traction of the head against the os tincea and the influence of the straps upon it exciting dilatation

and bringing on labor. But as this would be a new practice and is yet untried, of course we can only give our opinion upon its philosophy.

Evidently we have failed to convey to the author of the Report, in our description of the instrument, a full understanding of its character and applicability, or his fourth conclusion would not have been made.

The compression of the head by the forceps, we regard as one of the most serious objections to the instrument. First, because the compression necessary to prevent the instrument from slipping off where much extractive force is required is liable to kill the child. And secondly, because the diminution of one diameter of the head by compression with the forceps, is attended by an increase of the diameter that is transverse to it. And the diameter included between the blades of the forceps, the bi-parectal, being shorter already, than the others, of course compression will increase instead of diminishing the difficulty. Of course neither Dr. Storer nor any other good practitioner would advise the application of the forceps upon the face and occiput for the purpose of delivery; much less to make compression for reducing the size of the head in that direction. We confess we are surprised that the author should have brought forward this argument in favor of the forceps in the faces of such an amount of high authority as is in our standard works arrayed against it.

But we shall shortly publish a report of additional cases in which we have used the Extractor, with the opinions of numerous practitioners, who have witnessed its application, and therefore defer any further notice of the subject at present.

The report of the committee on medical Education, by Worthington Hooker, M. D., of Conn., chairman, is an exceedingly well written document, setting forth in the authors usual clear and elegant style, the defects of our system of education, and

suggesting remedies for them. The report closes by a series of resolutions, a report on Demonstrative Midwifery, and a correspondence between Dr. Bowditch and Prof. Horsford of Boston, upon the subject of Practical Chemistry.

The Report on Medical Literature, by Prof. T. Reyburn of St. Louis, chairman, is a well written, full, candid, and truthful exposition of the condition of our Medical Literature. The author refrains from that criticism, in reference to style, which much that is written in our country deserves, lest he might dampen the ardor of inexperienced writers and induce them to withhold valuable contributions of cases, facts, and opinions from the world.

After the Reports of the Committee on Publication and of the Treasurer, the Report on Hygiene, by P. C. Gaillard, M. D., of Charleston, S. C., chairman, follows.

This Report discusses the subject of heating and ventilating buildings, the system of Meteorological records proposed by the Smithsonian Institute, and the influence of the clergy in giving currency to quackery.

A table of the mortality of Chicago, by Prof. Herrick, is appended.

The admirable prize Essay on the Corpus Luteum of Menstruation and Pregnancy, by John C. Dalton, Jr., M. D., of Boston; now Prof. in the University of Buffalo, with its beautiful colored plates, is the last document in the volume.

After a brief history of the observations that had been made upon the Corpus Luteum previously, the author details his own very interesting observations and experiments:

First: Upon the Corpus Luteum of Menstruation. Under this head are reported eleven cases, in which the Corpus Luteum was observed in the human subject at different periods of its development:

Secondly: Upon the Corpus Luteum of pregnancy in the human female, in which eighteen observations were made.

Thirdly: Upon twenty-six cases in inferior animals.

There are four beautiful colored plates representing the appearances of the ovary with its corpus luteum, graffian visicle, &c., &c. The execution of these plates must have been quite expensive, although they are lithographed, on account of the care necessary in coloring and shading them properly.

With this brief notice of the volume, we must draw our article to a close, only regretting our want of space for a full analysis of the more important documents contained in it.

We regard it as decidedly the best volume that has yet emanated from the Association, nearly every paper being filled with important and interesting matter.

We are sorry the index is so imperfect, as it makes it quite difficult to make references to different parts of the volume.

In looking over the formidable array of special Committees that are to report at the next meeting, a large number of whose reports will be upon the epidemics of different States, and will consequently present a great deal of sameness and a large amount of dry detail of Topography, and Statistics, we can but fear that the next meeting of the Association will have a long and tedious session, and the next volume of the transactions be a far less interesting and valuable one than this before us.

We are very sorry that the entire edition of this volume excepting the copies already disposed of, with the surplus numbers of the preceding volumes were consumed in a late fire in Philadelphia, so that copies of neither can be obtained.

ARTICLE II.

Fisk's Fund Prize Dissertation of the Rhode Island Medical Society. Homœopathy: An examination of its Doctrines and Experiences: By Worthington Hooker, M. D., author of "Physician and Patient," and "Medical Delusion." New York: Charles Scribner, 145 Nassau St., 1851. Pages, 146, Duodecimo. (From the Publisher through A. H. & C. Burley of Chicago.

In this work the author does not merely aim at a refutation of the doctrines of the Homœopathists, but endeavors to show up the general principle upon which fallacy in all special systems originates.

In reference to the mode of discussing the subject of Homœopathy, the author remarks in his introduction—

"Homœopathy is so absurd, that it seems almost a waste of time and effort to go through a formal refutation of it. And so it would be, were its refutation not made necessary, from its adoption by so many of the intelligent and influential among the non-medical portion of the community. Such persons, I trust, will find, on reading this essay, that their belief in the system of Hahnemann has been formed without a real understanding of its merits. And I flatter myself that those of them who will give me a candid hearing, will be induced to abandon such a combination of falsities and inconsistencies as this system presents.

Homœopathists complain that physicians ridicule their doctrines, and very gravely say, that the system of the "sage of Coethen," is not to be put down by a laugh. But when things are exceedingly laughable, it is a little unreasonable to demand of us an imperturbable gravity. When Homœopathy conjures up its ridiculous fantasies to play before us like so many harlequins, it is hard to be denied the privilege of laugh-

ing at them. As to the alleged impropriety of ridicule in the discussion of the merits of this system, it may be remarked, that it cannot be improper if it only be used fairly; and if a little pleasantry suffice to demolish an error, it surely is an unnecessary waste of power to attack it with strong and sober argument. It were folly to deal sturdy blows at bubbles which can be dissolved by the slightest touch."

The work is every way readable, argumentative, amusing, and convincing, and needs but to be placed in the hands of intelligent men to give the little pill system its just deserts, for surely no one would tolerate such humbuggery after so full and what appears to us, so fair an exposure.

The author shows up very fully the errors and follies of the modes by which the Homœopathists detect the therapeutical applicability of remedies, which our readers all know to be by observing the symptoms that are produced by their use in health. Certainly the results of such a trial, with any medicine diluted as is recommended by the great exemplar, would be fanciful enough for the most spiritual and visionary deciple that Hahnemann ever had.

In reference to dilutions we quote one of his arithmetical calculations with the note he has appended to it.

"Let us try and get at the minuteness of this dilution. Let us see what quantities of liquid would be required for the successive dilutions, if instead of throwing away ninety-nine parts out of every hundred, the whole is retained. For the first dilution one hundred drops of alcohol would be used. For the second it would take ten thousand drops, or about a pint. For the third it would take one hundred pints. For the fourth ten thousand pints. And now it mounts up rapidly at each dilution. For the ninth dilution it would take ten billion of gallons, which, according to computation of Dr. Panvani, equals the quantity of water in the Lake Agnano, which is twelve miles in circumference. For the twelfth dilution a million of such lakes would be required, or as it is reckoned by Dr. Post of New York, (from whom I shall take the liberty to borrow the remaining calculations rather than attempt them myself,) it would require five hundred lakes as large as Lake Superior.

The fifteenth dilution would require a quantity of alcohol greater in bulk than the earth. The eighteenth would require a quantity greater than the volume of the sun. And the thirtieth, the one which Hahnemann insists upon as being the best for common use, would take a quantity of alcohol exceeding the volume of a quadrillion of suns.*

The work is printed in good style, and we should think, would meet with an extensive sale. Physicians would do well to procure it and loan it to their intelligent friends, who may have been deceived to a faith in the small doses. If they are not convinced by it, they may be given over as incorrigible.

* The following *jeu d'esprit*, appeared in a newspaper, so far from being a caricature, as the reader will see, falls far short of the absurdity of Homœopathy. It is a prescription for a Homœopathic rum cordial.

Take a little rum,
The less you take the better ;
Pour it in the lakes
Of Wener and of Wetter.

Stir the mixture well,
Lest it prove inferior,
Then put half a drop
Into Lake Superior.

Dip a spoonful out,
Mind you don't get groggy,
Pour it in the lake
Winnepissiogee.

Every other day
Take a drop in water,
You'll be better soon,
Or at least you ought to.

Attenuated as the dilution here described is, it falls very far short of the higher attenuations of Homœopathy, and especially that which is in so common use, the thirtieth dilution.

ARTICLE III.

Lectures on Scarlet Fever. By Caspar Morris, M. D., late Lecturer on Practical Medicine, in the Philadelphia Medical Institute, Fellow of the College of Physicians of Philadelphia, Member of the American Philosophical Society, etc. Pages, 104, octavo: Philadelphia; Lindsay & Blakiston, 1851. (From the Publishers through S. C. Griggs & Co., Chicago.

These lectures which originally made their appearance in the Medical Examiner, have been put into the form of a book.

The system of monographic treatises is one for which we have before expressed our warmest approbation. We are fully satisfied that it is the only plan upon which a thorough knowledge of the different subjects in our widely extended medical literature can be communicated, and hope that ere long we will have a full library of works, from different authors, each having *investigated thoroughly*, and treated one or two subjects alone. To render such works valuable, would require upon the part of their authors, close and careful investigation, correct and extensive observation, and a candid and sound judgment in reference to both the pathology and treatment of disease.

In the work before us, Dr. Morris has collected much valuable information, both in regard to the history, pathology, and treatment of the disease under consideration. His opposition to active cathartics, and especially to the use of Calomel in Scarlatina, we think is very judicious. We cannot too strongly express our convictions of the deleterious influence of this treatment which we fear is yet too generally resorted to by the profession.

In regard to the new treatment proposed by Dr. Schneeman, the principal feature of which is inunction of the surface by rubbing with a piece of fat bacon, and which has received the sanction of many who have tried it in our country, Dr. Morris speaks very lightly. His principal objection to it, however, it seems to us, will do more to establish his reputation for a fastidious taste, than for a desire to obtain some means of relief from this terrible scourge, the horrors of which he has so forcibly portrayed in the peroration to the subject under discussion.

We quote a paragraph to let our readers understand what we mean :

"Not only is the material used for anointing the skin offensive in itself, but directions are given that the clothing should not be changed, " as a clean shirt takes up more of the fatty matter than one already saturated. The rubbing in is to be kept up twice a day for *three weeks*, and once a day *during the fourth*. The patient is, *after this*, to be washed daily with soap and cool water, and then only is the warm hip bath to be commenced." It would require the utmost confidence of success, to reconcile an American mother to such treatment, or induce an American physician to make his daily visits to a chamber so foul. Whatever benefit might accrue from the softening of the cuticle, would be more than balanced by the loathsome effluvia. Nor does the length of time during which the application is to be made, convey an impression at all favorable to the remedial influence of this mode of treatment."

We never understood it to be an essential part of the treatment, that it should be continued so long, nor does the quotation make the continuance of the same linen essential ; we therefore ask, if Dr. Morris is not over nice ?

We have used the treatment referred to in several cases of Scarlatina, and so grateful has it been to the patients that they have, when old enough, uniformly expressed great satisfaction, and they have so speedily recovered from all distressing symptoms, that it has only been necessary to continue it for a few days.

We always use sudorific anodynes in conjunction with it. Although our observations upon its use in Scarlatina, have not been very extensive, we have formed so favorable an opinion of its influence, that we should not be deterred from again resorting to it, even at the risk of being regarded as indelicate by our author.

The work is got up in the usual good style of the extensive Publishing House, from which it is issued.

Part 3. — Selections.

ARTICLE I.

Dislocation of the Femur on the Dorsum Ilii, reducible without Pulleys, or any other Mechanical Power. Three Cases. An Essay read before the Monroe County Medical Society, at its Annual Meeting, in the city of Rochester, on the 8th May, 1850. By. W. W. REID, M. D.

[We extract the following cases from an exceedingly well written article under the above title, upon dislocations of the hip joint, published in the Buffalo Medical Journal, for August, 1851.

The cases will sufficiently show the plan of reduction proposed by Dr. Reid, but we are sorry our limits forbid the publication of his remarks in full, as they are judicious and philosophical.]

Case 1.—In the spring of 1844—[I give this case from recollection, the notes which I made of it having been mislaid]—I was called to see a strong, robust Irish woman, of whom they gave me the following history: Four days previous, while out at washing about three-quarters of a mile from her own residence, she slipped and fell down a flight of steps—could not rise—and when helped up, could not stand. She made a great out-cry but as no blood was visible, she was thought to make a great “fuss for nothing.” Her husband, who was an intemperate carman, was sent for. He put her on his cart, drove her home three-quarters of a mile; when he arrived there, not being able to lift her, he dumped her down at the gate as he would a load of dirt. The neighboring women helped him carry her in, and placed her in bed. For four days they assiduously fomented her hip, of which she complained greatly; but it swelled considerably and became

"black and blue." They now began to think the woman was "*hurt*ed." In this condition I found her. A single glance at the position of the knee and toe, created a strong suspicion of dislocation, but an attempt to *abduct* and rotate the limb, gave great pain and determined the nature of the accident. Although the patient was suffering considerably, I was in *extacies*, and felt really obliged to her, not so much, I hope, for dislocating her hip, as for the opportunity she afforded me to reduce it. I called in Doctors M. Strong and the elder Bradley, and Mr. now Dr. Hammond, to assist me. I stated to them my determination to reduce it, if possible, without the use of pulleys, and explained my method. Nevertheless I had provided myself with compound pulleys, to be used in case of failure. As the accident was of four days standing, the hip considerably swollen and inflamed, and the patient quite muscular, I took the precaution to bleed her freely, and give her tart-antimony till nausea was produced. She was in the meantime placed on a lounge, on which a wide board was laid and covered with a folded quilt. This made a firm table about fourteen inches high, and about twenty inches wide, which gave me the opportunity of throwing the whole weight of my body on the flexed limb, if I wished, while it gave me perfect command and control over it in every way. The patient was placed on her back, and a sheet folded lengthwise thrown across the upper edges of the pelvis bones, and each end given to an assistant, for the purpose of fixing the pelvis. Placing myself on the right and injured side, I seized the knee with my left hand, and the ankle with my right; I then flexed the leg upon the thigh; at the same time, slowly carried the knee and dislocated femur, over the sound one, pressing it firmly down upon it—and upward over the pelvis, constantly pressing it close to the body, moving it upward with a circular sweep over the abdomen, till the thigh was in a line with the right side of the body and the knee, pointing towards the right axilla. While the thigh was being carried up to this position, the bone or axis of the femur, was performing a kind of rotation on itself, whereby the toe was coming more outward and the heel more inward. In other words, as the knee went upward, the *obturator externus*, *quadratus*, &c., drew the head of the bone downward, and inward towards its socket. When the knee and thigh were in the position above indicated, the heel was strongly rotated inward, the knee drawn outward

and the foot carried across the thigh of the sound side, when the head slipped into its place, and the limb glided gently down into its natural position. In doing all this, comparatively very little force was employed, and very little pain produced, for the obvious reason, that, by this evolution, the muscles that were in a state of extreme tension and irritation by the displaced bone, were gradually relieved and relaxed, as the head of the bone descended and approximated its proper place, which it did by the action of the same extended muscles.

It will be perceived, that by this mode of operating, we make a *lever* of the shaft or bone of the femur, and a fulcrum of the edge of the pelvis—and by this means lift or dislodge the head of the bone,—while the abductor muscles draw it downward and inward, making it, as it were, *back into* its place, through the rent of the capsular ligament. Whereas, if it were drawn by direct force, as by the pulley, the head and neck of the bone would act as a kind of hook, and would tear away the capsular ligament, if it were only slit, and as I believe it often, if not always, does tear off the tendon of the *pyriformis*, as I shall endeavor to show presently; for the *abductor* muscles are so strained, and hold the head of the bone so firmly to the dorsum, behind the ridge of the *acetabulum*, that it is next to impossible for it to mount over this ridge and into the socket, and must therefore descend behind it tearing everything before it—ligaments, muscles and all—and hence the immense power required to reduce it by these means, and hence, too, the failures, the fractures of the neck, and the cripples, that have been made for life, by this barbarous and unscientific mode of reduction.

Case 2.—On the 31st of July, 1849. Mrs. Cornelius Christie, aged about 38 years, was thrown from the top of a load of household furniture, with a small child in her arms. Mother-like, she held fast to the child, which received no harm; but, falling among and upon the furniture, she had the perineum and vulva considerably lacerated, and her right hip dislocated. I saw her within an hour after the accident. Doctors Bowen, Brown, and Holton, were in attendance when I arrived in company with Dr. E. P. Langworthy. The patient was placed at once in the position as already described in case No. 1, when I proceeded, in like manner, to operate; but the wound in the perineum and vulva occasioning great pain, on

the attempt to flex the thigh, I desisted, and gave a full dose of morphine—not having any chloroform on hand. We waited three-fourths of an hour for the effect of the morphine. I then, as already described, seized the knee with one hand—the ankle with the other—flexed the leg on the thigh—the thigh on the pelvis, carrying it *inward and over the sound limb*, then upward over the abdomen, till the thigh was nearly parallel with the right side—then rotated the heel inward, carried the foot over the sound thigh, and the knee outward, when by a gentle oscillation and rotation of the thigh, the head slipped into the socket. The whole time required in this operation did not exceed *two minutes*. The force employed, and the pain suffered, were too trifling to be named.

Case 3—On the 2d of Dec., 1849, early in the morning, I met Dr. E. M. More, Prof. of Surgery in the Woodstock and Berkshire schools of medicine. He informed me he had been called up in the night to attend a case of dislocated hip. I jestingly said, “I wish you would let me show you how to reduce it.” He replied as jocosely, “I understand you have got some new-fangled notions about dislocations, and I should like to see you try your skill.” He desired me to explain my method. I did so, illustrating it by manipulations on the skeleton in his office. He agreed that I should make the attempt; but, that the full merit of my mode of operating should be brought out, he proposed that I should have no aid from any of the usual adjuvants, such as the warm bath, nauseating doses of antimony, bleeding, opium, nor chloroform. To all this I consented.

The patient, William Fagan, was a strong muscular Irishman, 52 years of age. He was placed on a lounge, on a board covered with a folded blanket, as already described—two assistants, one on each side, steadied the pelvis. I proceeded in all respects as above stated in the two preceding cases, and in about *two or three minutes* reduced the dislocation. Doctors More and Cruttenden, Mr. D. Bly, and other students of Dr. M. were present.

To those who have never witnessed this method of operating, these statements may seem incredible, yet so simple, easy and short is it, that Dr. More declared, that “hereafter any fool might reduce dislocation of the hip on the *dorsum ilii*.” Although in the three cases given above, I used a low table, yet I believe the floor is better, and all that is necessary. I

used, too, a folded sheet thrown over the pelvis, and had it held down on each side by an assistant; but even this is unnecessary, and is, moreover, always in the way, after the thigh has been flexed to a right angle with the spine or axis of the body; when the thigh has reached this position we have perfect control of the pelvis, and can fix it firmly, by pressing the thigh strongly down upon it. So simple, too, is the operation, that if the patient be a female, and it were required to reduce the joint without exposing the person, it can be done, under a light covering, or under even her own dress, if sufficiently loosened.

On the 18th of December, just after the occurrence of the third case above narrated, Dr. More had a subject in process of dissection by his students, when he proposed to me that we dissect up the muscles of the hip joints, leaving them *in situ*; dislocate the bones, and then operate on them by traction in the usual way, and also by flexion after my method, in order that we might observe the condition and action of the muscles, before and during both modes of operation. We found it impossible by the power of our hands alone to force the head of the bone through the capsular ligament, till we made a slight incision into it. The head then shot through it, tearing it sufficiently to permit its passage, but then the ligament seemed to fit close around the neck of the bone. As the head passed out backward and upward, it caught the tendon of the pyriformis, *tearing it off as it passed underneath and above it*, which, if it had remained entire, would have brought its tendon, like a cord, across the neck close to the head, lashing it firmly down to the dorsum of the ilium. We were at the time inclined to attribute its rupture rather to the decayed state of the subject, than to excessive distension by the dislocation. But precisely the same thing occurred in dislocating the other hip. It is true this muscle was also in the same *stale* state; and the accident may, perhaps, have happened in both instances from the like cause.

When dislocated, the head of the bone rested on the *gluteus minimus* muscle! The *gluteus medius* and *maximus* were shortened and relaxed—so also were the *iliacus internus*, *psaos magnus*, *adductor triceps* and *pectineus*. Till now I had supposed that this last named muscle would have been among those that were put upon the stretch. Posteriorly the *obturator internus*, *genelli* and *quadratus* were greatly strained; and it was

apparent, that the *pyriformis*, if it had not been torn off, would have been even more so. Anteriorly, the *obturator externus* was stretched, seemingly, to its utmost, *adducting* the bone powerfully. It is this powerful muscle, which so firmly fixes the limb ; turns the toe and knee inward ; prevents rotation and abduction, and gives such excruciating pain to the patient when any such attempts are made.

Here, then, are two sets of muscles, acting in direct antagonism to each other, and both strained to their utmost tension. One set, drawing the bone backward and rotating it *outward*. The other, *abducting* and rotating it *inward*. Some might be inclined to puzzle themselves to know how these two set of muscles, one situated before and the other behind, could both be in a state of tension, when the bone is drawn backward toward and in the direction of the latter. The explanation is very easy. Although the head of the bone is thrown backward, yet the great *trochanter* and shaft of the bone is thrown forward and rotated inward. So that the *pyriformis*, *obturator internus*, &c., which are inserted at the root of the *trochanter*, are necessarily elongated, while the anterior *obturator externus* runs backward behind and around the bone, to be inserted at the root of the *trochanter*, in order to rotate the limb outward it must also be strained just in proportion as the limb is rolled inward, and the *trochanter* is carried upward. The *quadratus* is stretched for the same reason, viz : its point of insertion is carried upward and inward.

After having carefully noted the relative position of the bone and muscles, we made traction on the femur, downwards and inward, over the sound limb, as we are directed by the most approved authors, but the moment the attempt was made, the muscles already named as being in a state of tension, became more tense, and bound the head of the bone more firmly down on the *dorsum* ; and although the muscles about the joint were separated from each other—were loose, without vitality and almost in a state of decomposition—yet it was with very great difficulty that we could bring the head of the bone down ; and when we did so, we carried away part of the capsular ligament, and if the *pyriformis* had not been already torn, it is very probable that it would have been torn now. But when we *abducted, flexed, and carried the limb up over the pelvis*, as has been stated, the reduction was effected with the utmost ease. We varied and repeated our experiments on

both joints, as often as the subject would admit, and always with the same results. I was here enabled to correct one error which I had committed in operating. If we carried the knee above the *umbilicus*, and pressed the thigh down close to the body, on a line with the side, the knee pointing towards the axilla, as I had always done, we brought the great tendon of the *gluteus maximus* into strong tension, which would compress the great trochanter so hard, that it prevented the head from mounting over the edge of the acetabulum. The reduction was effected much easier by carrying the knee and thigh about as high as the umbilicus, then abducting and rotating the thigh.

To Dr. More, who so kindly offered me the opportunity to demonstrate the correctness of both my theory and practice, I am much indebted and obliged.

From the foregoing facts and observations, gentlemen, I deduce the following propositions :

1. The chief impediment in the reduction of dislocations, is the indirect action of the muscles that are put upon the *stretch* by the mal-position of the dislocated bone, and not by the *contraction* of the muscles that are shortened.

2. That muscles are capable of so little extension, without hazard of rupture, beyond their moral strength, that no attempt should be made to stretch them further, in order to reduce a dislocation, if it can possibly be avoided.

3. The general rule for reducing all luxations should be, that the limb or bone should be carried, moved, flexed or drawn, in that direction which will relax the distended muscles.

4. Dislocation of the hip on the *dorsum ilii*, an accident so serious to the patient, and so formidable to all surgeons, is reduced with the greatest ease, in a few minutes, without much pain, without an assistant, without pulleys, without "Jarvis' Adjuster," or any other mechanical means, simply by flexing the leg upon the thigh, carrying the thigh over the sound one, upward over the pelvis, as high as the umbilicus, and then by *abducting* and rotating it.

ARTICLE II.

Experiments with the Ligature on Animals.

DOCTOR HESTER :

*Dear Sir :—*At your requests, I give you a succinct description of experiments made by me on living animals. The following is a faithful and correct account of said experiments, with their bearings on the actual state of Physiology and Pathology, etc.

Some years ago (I was then a student in the Charity Hospital of New Orleans) I noticed repeatedly, that patients dying in the very last stage of Phthisis Pulmonalis, offered at post mortem examination, strong thick cords crossing the cavernous hollows made by the progress of the disease. Upon close examination, I found that these cords were the pulmonary arteries obliterated in that part of the lungs. Such a pathological fact suggested the idea of applying this natural process of obliteration of the arteries in the cure of aneurism. During my stay in Mexico, I have been able to make experiments on living animals, and such experiments have confirmed the views I entertained on the subject.

On three living sheep, I took up one after the other the following arteries : The two carotids, and the two femoral.

After the first week, I noticed in all three an accelerated process of cicatrization, without any apparent suppuration, although the wounds had not been united by sutures, or any other means. At that time (8th day) I dissected in one the part where the ligature had been applied. Here I must say, that instead of using the ordinary silk ligatures employed in the operation of aneurism, and instead of tying the arteries (as is usually done in the operation of aneurism) tight enough to cut their inner coats, I used the common tape, and pushed it loosely around the artery, as is done in the case of a seton.

After a minute dissection, I noticed there was no perceptible pulsation at the distal side of the artery. I withdrew the ligature quite easily, as it did not press strongly on the artery. I could not perceive as yet any circulation in the above men.

tioned portion of the artery. I then cut the artery across, and observed that it was completely blocked up by a thick coagulated blood (the clot observed after tying an artery in the usual way.) Withdrawing the clot, a jet of genuine arterial blood came out.

The week after, (16th day) I dissected the neck and leg of the second sheep, and found that the wound was completely cicatrized. There was, as in the first case, no perceptible circulation in the artery below the seat of the ligature. Withdrawing the ligatures, there was no pulsation; cutting the artery, no blood came out; the clot was firmer, and adhered to the walls of the artery. I detached the clot with a little more difficulty than in the first sheep, and arterial blood came out.

In the third sheep, (on the 22d day) the clot was more strongly attached to the walls of the artery, and more firm, than in the two first instances.

In none of these three sheep could I notice any suppuration.

Thinking that some inflammation and suppuration would hasten the obliteration of the arteries, and render it more perfect, I performed successively the very same operation on two more sheep, three dogs and one calf. Instead of using simply the tape line, as I had done in the first cases, I applied to it some strong precipitate ointment, and took a great deal of care in bringing daily a fresh portion of the tape line in contact with the artery, and the parts surrounding it. It was with difficulty that I produced inflammation and a little suppuration in the sheep, but readily produced it in two dogs and in the calf.

After the 17th day, the obliteration of the arteries was perfect in all the sheep, the dogs, and in the calf.

Now, what is the bearing of these experiments in the operation for aneurism—especially in the large arteries? Evidently, if performed on the human being, as I performed it on the living animals, there is not the slightest risk of secondary hæmorrhage; which, consequently, adds considerably to the chances of success, considering that in man inflammation and suppuration is more easily produced than in animals; such inflammation would, at the same time, be propagated to the different coats of the arteries, and, consequently, promote much quicker the obliteration of the arteries.

Yours, respectfully, J. PIERNAS, M. D.

San Louis Potosi, Mexico, 1851.

[New Orleans Med. and Surg. Journal.]

ARTICLE III.

The Transfusion of Blood.

We find in the *Ami de L'Ordre* of Grenoble, of the 30th November, the following cure, as to the authenticity of which we reserve our opinion until further informed :

“For some days the journals of Paris have been very much occupied with a surgical operation, known by the name of the transfusion of blood, which was performed at the Hospital of St. Louis by one of the ablest physicians. The same operation has just succeeded completely in a village near Grenoble. We think it our duty to give certain details of the circumstances attending this operation, which were transmitted to us by a correspondent at Domene.

After an unfortunate accouchment, the wife of Mallet, a butcher at Saucey, aged 30 years, experienced a hæmorrhage so abundant, that in a few minutes she was reduced to extreme feebleness. It was then decided to call in medical aid. Dr. Marmontier of Domine was sent for ; but he did not reach the bedside of the patient until two hours after the accident, when the illness had made considerable progress. The midwife and several other women who surrounded the patient, saw her motionless, without consciousness, and did not doubt for a moment that her death was approaching. The Doctor determined to try the transfusion of blood. He satisfied himself that there was still feeble circulation. Immediately he laid bare the basilic vein of the right arm to the extent of one or two centimeters: he opened it, and inserted the pipe of a small syringe, with all the precaution which the gravity of the circumstances required. A neighbor, Miss Fagnet, consented to be bled. In a few moments, the blood which had been taken from her veins was flowing in those of the patient, and carried new life into her heart, which had almost been stilled. The transfusion was so successful, that in a few moments after Mrs. Mallet was restored to consciousness, and was able to make some slight movements. The cure commenced im-

mediately, and with every prospect of being complete. Her strength returned with astonishing rapidity, and now the woman has entirely recovered her health. Her feebleness was so great at the time of the operation, that she was not aware of it except a kind of tickling in the arm that was incised.—*Jour. des Connaissances.* [In N. O. Med. Jour.]

ARTICLE IV.

Meeting of the American Medical Association.

The fifth annual meeting of the American Medical Association will be held at Richmond, Va., on Tuesday, May 14th, 1852.

All secretaries of societies, and of other bodies entitled to representation in this association, are requested to forward to the undersigned correct lists of the respective delegations as soon as they may be appointed.

The following is an extract from Art. II. of the constitution :

"Each local society shall have the privilege of sending to the association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half of this number. The faculty of every regularly constituted medical college or chartered school of medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing a hundred inmates or more, shall have the privilege of sending two delegates ; and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate."

The medical press of the United States is respectfully requested to copy.

P. CLAIRBORNE GOOCH,
One of the Secretaries,
Bank Street, Richmond, Va.

ARTICLE V.

New Theory of Respiration and Circulation---Interesting Experiment on an Alligator.

[No apology is needed for laying the following correspondence before our readers. They will find it possessed of much interest, whatever view they may take of the theory attempted to be established. It will be seen that converts to it have risen up in no obscure place and of no mean standing---and Mrs. Williard may well be proud of the character and talent which have come to her aid in support of her new doctrines. It is proper to mention that she would gladly have withheld from publication the first part of Dr. Cartwright's letter---her "apotheosis"; but its omission would have injured his graphic description, into which it is so ingeniously wrought, and it is therefore inserted. The theory in question---viz: that the motive powers of blood are in the lungs and not in the heart, is applicable, if true, to many useful purposes connected with both the healthy and diseased states of the human system; and we now have on hand, for publication in the Journal, some extended remarks on this point by Dr. Cartwright.---EDITOR of Boston Med. & Surg. Jour.]

New Orleans, Dec. 1st., 1851.

Mrs. Williard.

MY DEAR MADAM :---I am about to write you a strange, original, but I hope not unwelcome letter, on a most interesting and important subject, which, judging from your writings, seems very *strangely* to have enlisted the energies of your whole soul. Believe me, that what I have to say is the literal truth, which I can prove in any court of justice, although in communicating it I shall be compelled to borrow a little from the language of fiction, to tell of truths more strange. I therefore beg leave to inform you, that I was present at what might, in mythological language, be termed your apotheosis, and that New Orleans is entitled to the credit of being the first to award the honor. In ancient times, on such occasions, a vast

pile of faggots and aromatics was set on fire, and an eagle let loose from a high pinnacle to mount into the sky as the messenger of the mandate to defy a mortal. Thus in Rome of old. But in New Orleans, instead of kindling the fire in a pile of faggots, it was kindled by means of a blow-pipe, in the lungs of a dead leviathan of the Mississippi---or, in plain language, a saurian, crocodile or alligator, which it brought to life!! In its resuscitation your theory of "*the motive powers of the circulation of the blood*" was established beyond all doubt or dispute. The crocodile, an Egyptian divinity, ruscitated, instead of the eagle of imperial Rome let loose, was made the messenger of the mandate for your enrolment among the immortals. Many of the persons present on the occasion are not unknown to fame. Prof. C. G. Forshey, a learned chemist and distinguished topographical engineer in the United States' service, and whose essays on the hydrography of the Mississippi you have probably seen, superintended the inflating process. Dr. Bennett Dowler, destined to live in futurity as the discoverer of post-mortem muscular motion under percussion, and whose pathological investigations, although not half told, have already given him world-wide celebrity among the learned, performed the dissection of the throat of the dead. "*Niliaca fera*," literally laying the bosom bare by removing every covering that concealed the heart and lungs, thus enabling all to see what physiological phenomenon occurred in bringing the dead to life.

The alligator had been killed by tying the trachea. After it had been, to all appearances, perfectly dead for about an hour, it was brought up, from its cage on the ground, in a back lot, by some negroes, into the third story of a house on Tchoupitoulas street, the most public street in the city, and placed on the dissecting table. Dr. Dowler then dissected the throat, exposing the heart and lungs, and extended the dissection into the abdomen, so as to bring into view the organs of that region. The blood was all wiped away, and the viscera of the abdomen and throat exposed naked to the eye. Not a motion or sign of life occurred. I took the heart in my hand. It was dead and cold. A hole was afterwards cut in the trachea, below the ligature, and a blow-pipe introduced, which Prof. Forshey worked. Long and lustily did the Professor blow, the sweat streaming from every pore from the exertion, and no motion or sign of life appeared. The operation was about

to be abandoned, when I (having full faith in the main conclusion of your theory, although I believe that some of the links of the ratiocination leading to it are defective) advised the inflation to be persevered in—and soon a faint quivering of moving blood in the diaphanous veins of the lungs began to be seen. The inflating process was continued with renewed energy, and at length the blood began to run in a stream from the lungs into the quiescent heart. Then the heart began to quiver, and soon to pulsate, and ere long signs of life began elsewhere to occur. The inflation being continued, the animal began to move. Dr. Powell undertook to hold it, and, although a strong muscular man, ‘Caiman’ became too strong for him and other assistants to hold. The inflation was stopped, and the saurian was bound with cords. The process was resumed, and had not been continued long, before Leviathan was himself again, and broke the cords as easily as did the strong man those of the Philistines. Becoming dangerous to the by-standers, and proving his title clear to his old epithets, “*formidabilis--immanis---terrificus---horrendus*”---the inflation was suspended, and the Sampson of the Mississippi was shorn of his strength, and fast bound to the table by strong ropes. Again the vital air was sent to his lungs, and again “*la grande Dragonne*,” as the French call him, made the most vigorous exertions to get loose --biting and snapping at everything. The vivisection clearly proved, that the *primum mobile* of the circulation and the chief motive powers of the blood are in the lungs, and not in the heart. Dr. Dowler, having never read your work on the circulation, when he saw the blood in motion in the lungs before any movement occurred in the heart, supposed that atmospheric air endowed the globules of the blood with a self-locomotory power. But why seek for a hypothetical self-locomotory power in the globules themselves, when the laws of chemistry declare to us the development of a most active locomotory power in the caloric evolved in the transmission of venous into arterial blood? the capacity for heat, between the two, being so different, that the latter could contain insensible caloric enough to give it motion, although its sensible temperature were actually less than the former. Thus either moves under a sensible temperature below that required to move water.

The alligator is a good type of those animals called cold-blooded. Some learned doctors have enlisted the cold-blood-

ed animals and sent them against your theory of the circulation, to batter it down and to cover it with ridicule. How surprised will they be to find that these very animals sent against it to demolish it, have built for it an imperishable rampart, against all assaults.

In regard to the hot-blooded, I have a very pretty gold snuff box, for which I am primarily indebted to faith in your theory, and secondarily to a lady, the mother of a child supposed to be dead, whose lungs I continued perseveringly to inflate until the *nouveau nè* came to life, and is still living and flourishing.

But I must reserve some remarks I have to make on the utility of your doctrines, reduced to practice, for another communication.

You will be surprised and pleased at seeing an intimate connection traced between red, healthy blood, and education, physical, moral and intellectual, and the great advantages pointed out, which your discovery, showing how it can be made at will, gives to the physician in the prevention and cure of a multiplicity of diseases and infirmities, particularly some of those common, and most of those peculiar, to your sex; as also the hidden power, of which it is the spring, requiring only to be put in motion and properly regulated and assisted by other expedients of science, to confer on them, not only health, intellectual and moral superiority, but grace and beauty.

I have the honor to be, with great respect,

Your ob't servant,

SAMUEL A. CARTWRIGHT, M. D.

Troy, Dec. 11, 1851.

Dr. Cartwright.

DEAR SIR :---Day before yesterday I received the wonderful account of the great "saurian" experiment by yourself and other eminent physiologists; and I received it as, some years ago, you told Mr. and Mrs. Prewett, then of Natchez, on returning to them my work on the "Circulation," that I had made the announcement of my theory. "She has found it," you said, "she has found it; it is true!--but she has told it like a woman." The statement of your wonderful operations on the monster of the Mississippi, learned and scientific--unexceptionable--all but a little poetic *heathenry* in the introduction, of itself jocular and amusing--yet moved me to tears

and to prayers. Now God be magnified, I said, I shall no longer be looked upon as an impudent pretender, shunned and even hated by some of those whose good opinion is most valuable, pitied by others, as subject to a species of monomania of my own sex, materially hindered. For the great interest and object of my life has been, and is, their improvement. This physiological subject, and history, have been made the two main episodes: and both have furnished examples of the general manner in which my mind, whether I will or no, must operate.

The various steps of my *publishing* this history, have resulted from the strong impulses of a religious duty; for it was felt by me to be a masculine theory, and its reputation rather dreaded than coveted, though a sense of justice, and perhaps a love of fame, would not allow me to permit another to claim it. Many efforts were fruitlessly made to get it before the public otherwise than publishing it in my own name. My small volume on "The Motive Powers which produce the circulation of the Blood," was drawn forth by the feeling that the long journey I was about to take, in which I visited your mighty river, whose exhilarating waters once drank, men grow so fearless, that they no longer care for death, either as respects themselves or their neighbors—being about to take this journey I felt it to be my duty to publish this theory *then*, as I might have no hereafter in which to do it.

Yet, the theory required to be received by the medical faculty before it could be said to be adopted. But where were the brave physicians who would dare—a woman having first promulgated it—to assert its truth and its importance? They ought to have been found among those who drink the courage giving waters of the Mississippi, and whose hearts partake of that generous chivalry in the service of grateful woman, which my adventures would show, is indigenous upon its banks. And you, Sir, who pronounced my "Eureka," guided alone by your clear perception of truth, you ought to have been in this affair as you are, "the man of destiny;" and *Leviathan*, breaking his bonds, is a fit emblem of what you have done.

All clear revelation must be "*from faith to faith.*" In reading your letter, some persons present, not previously initiated, wore countenances, as I was astonished to perceive, of indignant incredulity; and on bringing them to explanation, I found that they regarded it as an unmitigated hoax!! and thought

that Ferdinand Mendez Pinto was but a type of the author, whoever he might be. I however showed them so many evidences of its genuineness, especially the ability and learning, medical and literary, with which it was written, that they finally concluded that a man who could compose thus, would not stultify himself by a contemptible artifice. Nevertheless, in the announcement to the medical world of one of the most important and remarkable experiments upon their records, would it not be well to request Professor Forshey and Dr. Dowler, one or both, to give, in their own language, a statement to follow yours; so that by "two or three witnesses" the mouth of unbelief itself may be stopped.

In the mean time I will communicate with Dr. Smith, the editor of the Boston Medical Journal, and after copying your letter, send him the original; and perhaps as the duty of forwarding for publication your mythological exultation of myself, falls to me, I must send my answer too; to show that though I thank you from my heart, it is not so much that you offer me a robe of honor, as that you take a fool's cap from my head, and a heavy weight from my feeble shoulders; and chiefly, that I may now hope and expect, that the truth, which for nineteen years I have, by God's help, nursed in solitude and sickly shade, is from henceforth to emerge into free air, and vigorous sunlight, and to be a blessing to mankind.

With profound respect, I am, Sir,

Your friend and servant,

EMMA WILLARD.

ARTICLE VI.

Motive Power of the Blood—the Experiments on an Alligator at New Orleans.

[In consequence of the suggestion contained in Mrs. Williard's letter to Dr. Cartwright (published in this Journal of January 7th,) that as some persons regarded the great alligator experiment as a hoax, it might be well for him to fortify his own testimony by that of other persons present, especially those mentioned in his letter as aiding in its performance, that eminent gentleman wrote to Drs. Dowler and Nutt, and Prof. Forshey; and having received their replies, he forwarded them to Mrs. Williard, requesting her to send them to the office of the Journal. Some necessary delay has occurred; but they arrive opportunely to satisfy Dr. Chandler and others, that however the rationale is explained, the remarkable experiment related in this Journal as truth, is so in reality.—*EDITOR Boston Med. & Surg. Jour.*]

New Orleans, Dec. 29, 1851.

To Bennett Dowler, M. D.

DEAR SIR:—1. Did or did you not perform an experiment upon an alligator, in presence of Prof. Forshey, myself and others, by tying the trachea, and returning it to its den?

2. If so, was or was it not found, some half hour afterwards apparently dead; and did or did you not have it brought from its den, into an upper story of a house on Tchoupitoulas st., laid on a table, and its viscera exposed to view by a dissection.

3. If so, did or did not the animal move or show any signs of pain during the dissection?

4. Were or were not the lungs, after this dissection, inflated by Prof. Forshey; and if so, did or did not the animal come to life?

5. If it came to life, did or did it not become so vigorous in its movements as to make it necessary to hold it or tie it; and if so, did or did you not afterwards adopt the expedient of binding it with cords to a plank to enable you to prosecute the

subsequent vivisection without interruption from its movements?

By answering the above inquiries, you will oblige

Your ob't serv't,

SAMUEL A. CARTWRIGHT.

New Orleans, Dec. 31, 1851.

To Samuel A. Cartwright, M D.

Dear Sir:---I hasten to acknowledge the reception of your note (of the 29th inst.,) which I did not get until last night. On the reverse of the same sheet, I beg leave to reply to your questions, *seriatim*.

1. On the 20th of August, at 9 A. M., I tied the trachea of a healthy alligator, and returned it to its den, in your presence, as well as in the presence of five other physicians, Prof. Forshey, and others not of the profession.

2. In about thirty or forty minutes after the operation mentioned, the animal was brought from below to the third story of a house on Tchoupitoulas st., the same gentlemen being present; and the alligator appearing quite dead, was laid on the table for anatomical examination.

3. During several minutes, while I was demonstrating the viscera by dissection, the animal remained completely passive and motionless, and apparently completely dead.

4. After I had exposed to view the thoracic and abdominal viscera, I removed the ligature from, and made an opening in the trachea. Prof. Forshey having repeatedly inflated the lungs by means of a tube introduced into the opening, life gradually returned to the animal.

5. The animal's motions became vigorous, and its limbs were so well directed to the seat of the dissection, that it became necessary to hold, and finally to tie the same to a plank, in order to complete the demonstration (of the organs,) which was carried on for near two hours, with some interruptions from a simultaneous vivisection of another alligator in the same room.

The above facts, noted and recorded a few hours after their occurrence (in Vol. XIX., p. 764 MS.) were observed by numerous witnesses, as well as yourself.

I am, dear Sir, yours truly,

BENNET DOWLER.

New Orleans, Jan. 7, 1852.

To Dr. C. R. Nutt.

Dear Sir:---Please be so kind as to answer the following questions, and much oblige

Your o'bt sevr't,

SAM'L. A. CARTWRIGHT.

1. Did you not witness some experiments performed by Dr. Dowler, on Tchoupitoulas street, upon a couple of alligators, wherein one of them was resuscitated by inflation of the lungs?

2. If so, did you take notes, at the time, of the phenomena observed, and will you look over those notes and say whether the alligator resuscitated appeared to be perfectly dead before the inflating process commenced? Whether *fire* was applied to it; and whether its thorax and abdomen were laid open by the scalpel so that the viscera could be seen before inflation of the lungs commenced?

3. Did life return in a doubtful way, with only feeble manifestations; or was it vigorous life, characterized by violent motions, ruled by the will?

4. Were any means used, after resuscitation, to restrain the motions of the animal? Was it held for a time, and subsequently secured by tying?

5. Were there any motions of the heart when inflation was commenced?

Answers to the foregoing Interrogatories.

1. I was present---witnessed the vivisections of Dr. Dowler upon two alligators, one of which was decapitated, and the other strangled by exposing the trachea and tying it up with a firm and strong ligature. It was afterwards resuscitated.

2. I took notes at the time, which I am unable now to find. The strangled alligator, after the application of the ligature, exhibited the ordinary appearances of suspended animation, that of entire relaxation and total loss of motion. Rigor mortis was absent at the time Prof. Forshey inserted a proper tube into the opening made in the trachea. Fire was applied to the body, without any corresponding expression of pain. Dr. Dowler had exposed the thoracic viscera before the experiment of inflation. By inflation its lungs (large air sacs,) beautifully covered with arborescent anastomoses of bloodvessels, were exhibited.

3. Upon the continued efforts of inflation for the space of two or three minutes by Prof. Forshey, the strangled alligator

manifested all the signs of renewed animation and intelligence as well as sensation, so far as its motions were unimpaired by the knife.

4. It made repeated efforts to escape ; and to continue the vivisections, it was found necessary to tie it.

5. I cannot speak positively of the movements of the heart, whether it was quiescent or not.

C. R. NUTT.

January 8, 1852.

Oleander, Carrollton, La., Jan. 1, 1852.

To Dr. S. A. Cartwright.

Dear Sir :—Your note relating to our experiments upon two alligators, has come to hand ; and I take pleasure in adding my testimony, if it be needed, to yours and others, as to the wonderful facts developed by that examination.

I made no detailed record of the experiments. The minutes were kept by our friend, Dr. C. R. Nutt, and the results were published by Bennet Dowler, in his Contributions to Physiology.*

We manacled the alligator and laid him on his back, upon the block ; cut through the skin of the throat with a sharp knife, and tied a cord tightly round his wind-pipe, and then sewed up the incision, and turned him loose in his den. He exhibited but slight evidences of pain, in the process of cutting and tying up the trachea. Very little blood was expended.

We then passed into another story of the building, and commenced the experiments on alligator No. 2.

At the lapse of twenty minutes by the watch we returned to see our first object ; and, to our astonishment, found him *stone dead*. We took him from the cage, laid him upon the table and handled him, finding him lifeless and limber. We touched fire to him (as in other cases of decapitation) to which he showed no response, or motion of any kind. It was a subject of some merriment, that “ to kill an alligator, cutting his head off, his heart and lungs out, and probing his spinal mar-

* We omit here a part of Prof. Forshey's letter, as it refers not to facts, but to the peculiar views of Dowler who was experimenting on alligators for a different object from that which induced Prof. Forshey and Dr. Cartwright to attempt the resuscitation described. A forthcoming work of Dr. Dowler, said to be of great interest, and much originality, will give some new phases of this experiment, and detail another made upon a second alligator. Some months elapsed before Dr. Cartwright wrote his description to Mrs. Willard, as he waited to give Dr. Dowler the advantage of being first to produce these singular experiments.

row, were of little use ; but that a few minutes choking was effectual." We cut loose the ligature of the trachea, and Dr. Dowler commenced dissecting about the throat ; but still no signs of life appeared.

It was at this stage of our inquisition, that I requested you and Dr. Dowler to await an experiment to resuscitate him, by inflating his lungs. It was thought scarcely worth the time ; and as some delay occurred in my search for a proper tube,* the knife had severed his ribs from the sternum when I commenced inflating the lungs. I injected the air with all my power, and then expelled it by compression, and repeated this several times, when signs of life appeared. And in two or three minutes more, about six or seven minutes in all, he was wide awake and ready to defend himself.

After this I do not remember the order of successive experiments ; but I know that, to the astonishment and satisfaction of every one present, his re-animation was complete, and his subsequent actions as intelligent, and nearly as powerful, as before he was throttled, and that his subsequent death was produced by being again manacled, and having his heart and lungs dissected out.

Curious and profoundly interesting as this series of experiments were to all of us, and must be to every reflecting mind—especially in their psychological bearings—I regard this one of resuscitation after death, by inflating the lungs, as having a directly practical use, of far more ready and general application than any one of the series.

The subject was not then new to me, as a mere random thought thrusting itself up accidentally. In the year 1838, I witnessed the sudden death of a most valued friend. The cause of death was such that my mind never became reconciled to it. It was too late when the suggestion came ; but it forced itself upon me to conviction---that had the lungs been inflated, after the cause of death was removed, re-animation would have followed. My professional pursuits were not such as to afford me an opportunity to make such experiments upon human life ; but I frequently spoke of it to physicians, yet never met an opportunity to test it upon a life of any kind, until on this occasion.

* Dr. Cartwright in a letter remarks that these removals and delays, together with vivisection, consumed so much time, that fully an hour occurred from the throttling to the resuscitation.

Let me then state the practical lesson which results from this experiment, and indulge the hope that your professional brethren will fully test its value.

“When death results from a cause, which can readily be removed, after death re-animation may be effected, and the machinery of life set in motion, by artificially inflating of the lungs.”

I have the satisfaction to remain

Your faithful friend,

CALEB G. FORSHEY.

—*Boston Med. and Surg. Jour.*

ARTICLE VII.

Prof. Dowler and the Medico Chirurgical Review.

[It is exceedingly gratifying to see the following notice of our distinguished countryman, Prof. Bennett Dowler of New Orleans, in the leading European Medical Review. It speaks well for the ability and correctness of observation of Dr. Dowler, and for the independence of the Review itself.]

“Dr. Dowler has made himself conspicuous among his brethren, by his refusal to receive certain of those *Neurological* doctrines, which, under one form or another, are now generally admitted among well informed physiologists.* We do not quarrel with him for declining to accept *the double system of excito-motor and of sensori-volitional nerves,* SUCH HAVING, AS WE NOW BELIEVE, NO REAL EXISTENCE IN NATURE; and we have a strong sympathy with his objection to the new terms—diastalic, esodic, exodic, anodic, cathodic, paltodic, anastalic, catastaltic, peristaltic, &c., by the adoption of which, we venture to think,

* The Italics and caps are ours.

a comparatively easy subject would be rendered obscure. * * * * Dr. Dowler has a fine field for experiment, being able to procure alligators for purposes, for which European physiologists must content themselves with frogs; and the former animals not only exhibiting the phenomena of reflex action upon a much larger scale, but also possessing a most extraordinary tenacity of life. His accounts of his experiments are very graphically drawn," &c.

[The following remarks upon the above quotation, by the editor of the New Orleans Medical and Surgical Journal, so fully coincide with our own views, and so clearly set forth Dr. Dowler's position, that we insert them in lieu of further comment.]

"We have not space to copy the whole Review, nor to notice certain details, in which the Reviewer dissents from Dr. Dowler, particularly in the concluding query, from which it appears that the Reviewer mistakingly supposes that Dr. Dowler wishes to establish an independent *Me Ego*, or conscious mind, in the centre of each division of a vivisected or divided animal. Dr. D's. argument is in favor of a diffused, and not in favor of a central sensorium, in the entire, much less in the divided animal. The Reviewer, probably, has not seen the whole series of Dr. D's. papers on this subject, or he would not have attributed so much to *automatic action* in the phenomena detailed by Dr. D., who has thoroughly examined and fully refuted this mechanical idea, as applied to explain the varied intelligential actions of decapitated and divided animals, as related in his numerous papers.

The readers of this Journal will probably be not less surprised than ourself, at the moral courage manifested by the most eminent Medical Review extant, in abjuring all faith in the Four-fold Nervous System, "*now generally admitted*," (to use its own words) "*amongst well informed physiologists, such having, as we now believe, NO REAL EXISTENCE IN NATURE.*"

Such an admission forms an epoch in the mighty stream of knowledge, that has so long flowed in the Medico Chirurgical Review, and is a luminous exemplification of an editorial principle announced in the June (1820) number of that Journal, more than thirty-one years ago, namely, "This journal is free and independent as the air we breathe; we trust it never will

be *deterred* from doing that which is right, or *seduced* to do that which is wrong."

"The double system of sensori-volitional nerves," which the illustrious Bell was supposed to have discovered, found in this Review its mightiest and earliest advocate. In a Review of Mr. Bell's experiments, on the Nerves, in March, 1822, the Reviewer says :

"No man in this country works harder in unraveling those mysteries of the nervous system which puzzle our senses, than the present distinguished teacher in the venerable school of the Hunters.

"Some people may ask, to what does this discussion lead, after all ? It may be answered, that both the surgeon and physician are interested in knowing, that *two sets of nerves* are distributed to the face, having *distinct functions*.

"When the air-balloon was first discovered, some one flip-pantly asked Doctor Franklin, what was the use of it ? The Doctor answered, in the Socratic manner, by asking another question—'*what is the use of a new-born infant ?—it may become a man.*'"

We repeat that this admission forms an epoch in scientific progress, because with certain individuals it will weigh more than any amount of *demonstration, intuition, or possibly revelation itself.*"

ARTICLE VIII.

Welfare of the Medical Profession.

This is a part of the title of an address delivered in the Rush Medical College, by N. S. Davis, M. D., one of the Faculty of the Institution. The author is one of the originators, if not the originator, of the American Medical Association. We have a distinct recollection of his urgent appeals to the profession,

and of the ability and perseverance which ultimately accomplished the great idea that he had long entertained, of concentrating the medical efforts of the United States. A man who could marshal such a force, and bring about such results, must possess original qualities ; and in the discourse before us, Dr. Davis has written with energy, and a like philosophy, too, on the dignity, honor and welfare of the medical profession. He does not appear alarmed at the enormous increase of physicians ; he regards, in mercantile language, the quality more than the quantity ; but unless a high standard of preparation is rigidly maintained by the schools, the people may be quite as much alarmed as those who are in dread of competitors in the field of business. There are some historical memoranda introduced, which are very striking and very true, to show what has been the character of medicine in the ancient seats of civilization, and what it now is, in the dark triumphs of moslemism in those same countries. Dr. Davis could not produce an uninteresting paper, since the current of his thoughts is always indicative of activity, freshness, and a hearty determination to devote his powers to the honorable advancement of a profession, to which he is himself an honor.—*Boston Med. and Surg. Jour.*

Homœopathy and the Royal College of Physicians, (London—The following letter from the President of the Royal College of Physicians was sent in reply to an application from a homœopathic practitioner for admission to examination for the Degree of Doctor of Medicine :

“SIR:—The foundation of the Royal College of Physicians was for the purpose of guaranteeing to the public skilful and safe practitioners.

“The College of Physicians regard the so-called homœopaths as neither skilful nor safe practitioners.

“Therefore the College cannot, without betraying a sacred trust, give its license to persons whom they regard as wholly unworthy their confidence, and with whom it is not possible they can hold any communion.

“I remain, Sir, your obedient servant,
“JOHN AYRTON PARIS.”

Part 4.—Editorial.

ARTICLE I.

VALEDICTORY.

After laboring six years in the editorial department of the Journal, it might be expected that we should, on retiring from the post, write an extended valedictory address. But we have during our connection with the Journal, expressed our views freely and independently upon all subjects upon which we have been called upon to write, and where they have been correct, they need no comment ; where they may have been erroneous, we feel satisfied that no renunciation at this late period will set them right. We have but a poor opinion of last confessions at any rate, so we shall take leave of our tripod and numerous friends without any rehearsal of the past.

We feel a satisfaction in leaving the interests of the Journal in able and experienced hands, and hope that the prosperity that has attended it during our labors will be continued even more abundantly.

The terms and condition upon which the Journal will hereafter be published, may be found in the Prospectus of the next volume on the cover.

We take leave of our readers, though personally unacquainted with many of them, with regret, as there is a satisfaction in constantly communicating, that we are sorry to lose.

To the numerous contributors to our pages, we return our sincere thanks for the valuable and indispensable aid they have given us, and bespeak for our successor and for the profession at large, that they will continue their able and interesting communications.

With our cotemporaries of the editorial fraternity, for whose numerous marks of kindness and attention we are under obligations, we part as with brethren of a sacred tie; hoping that they each and all may have the satisfaction of seeing the good work of enlightening the profession prosper in their hands.

ARTICLE II.

Electric Journal of Education and Literary Review, Edited by N. S. Davis, M. D. Corresponding editors, S. S. Randall and O. F. Bartlett.

This work, devoted to the interest of Education in the North West, is issued from the Chicago press monthly at \$1,00 per annum. It is printed neatly and edited ably, and should receive the patronage of the public generally.

There is no interest of more vital importance to the future welfare of the profession of medicine, as well as to the community at large, than the proper education of those that are to come after us; for upon it will depend the happiness and usefulness of both.

Physicians generally, are supposed to be well educated

themselves, and of course should always take the lead in promoting the cause of education in their respective neighborhoods. Those who do so, will find valuable aid to their labors in the work before us, and will also advance the cause by extending its circulation among their friends and neighbors.

ARTICLE III.

Dr. Talcott's Address to the Candidates for the Degree of Doctor in Medicine, in the Medical Institution of Yale College, January 15th, 1852.

This is a plain, practical piece of advice to the gentlemen just entering upon the duties of the profession.

After urging the propriety of diligence, faithfulness, care to the welfare of the profession and morality, the author makes the following sensible remarks upon the subject of engaging in political contests :

“ Let me caution you to avoid mingling in party politics. If you value your own peace and comfort, or your success in your business, never condescend to be a political partizan, or a candidate for political office. Exercise your rights as a citizen, according to your views of duty, but shun bar-room harangues, and party caucuses. Be satisfied to let the burdens of public office fall upon those shoulders that are aching to receive them, and that will probably ache still harder in sustaining them.”

ARTICLE IV.

THE MEDICAL PROFESSION AND PUBLIC PRESS.

It is a lamentable fact that the great lever by which public opinion in this country is formed and controlled, the public press, has to a great extent, been suffered to pass into the interests of quackery.

Articles, both editorial and communicated, noticing the different special systems of medical practice, and nostrums, and men connected with them, as well as crowded columns of their advertisements are continually making their appearance in the columns of the news-papers, while the notices of scientific improvements, the transactions of the regular profession and of the men who so devotedly labor in its ranks, are very rarely to be seen. And when these are noticed, it is too often in a manner to do the profession more injury than good.

That this prostitution of the public press to the service of the quack need not to be so, is written in the fact that the regular profession are more numerous and more influential, except in their having almost wholly lost this arm of power.

Shall we not see to it, that our conventions, society meetings, discoveries and public movements, with biographical sketches of our distinguished men receive more attention in the public journals? We would be far from approving of individual puffs, which are undignified and ought not to be sought for, or countenanced by honorable physicians; but certainly a knowledge of the resources of our art, and the utility of our practice, must by some means be kept before the public, or our science will be of no avail, and our skill will neither be appreciated nor called into requisition. And shall we disregard the public press, the most influential of the means for ac-

completing this end ? Shall we wrap ourselves up in our dignity, and by a stolid indifference to the education of the public in such matters, say we are wise and skilful, if you only knew it, but will not deign to tell of our wisdom, nor to bring to your knowledge the evidence of our skill ? Certainly all experience, all success, admonishes us to pursue a different policy.

Let us then, exert our influence to secure a full amount of attention to the profession by the public journals, by writing for, and aiding and patronizing such as publish scientific articles and liberal notices of the regular profession, and great good to the community will be the result.

ARTICLE V.

Transactions of the Medical Association of Southern Central New York, at the Annual Meeting held at Bringhampton, June, 1847.

This is a volume of 121 pages, octavo, made up principally of Reports and original papers mostly relating to the condition and practice of medicine in the district included by the limits of the Association, and cases that have occurred in the practice of different members.

It shows a commendable zeal on the part of the members and speaks well for the ability with which they are pursuing the study and practice of medicine.

ARTICLE VI.

Report of the Indiana Hospital for the Insane, for the year 1851.
(By favor of Dr. Nutt.)

There were in the Institution at the commencement of the year,	80 patients.
Admitted during the year,	128 "
Discharged " " "	71 "
Recovered " " "	52 "
Died " " "	13 "
In the Institution at date of Report,	137 "
Per cent. of recoveries in recent cases (those of less than one year standing)	80.77
Per cent. of recoveries in chronic cases, (those over one year standing when admitted,	55.55

This shows a very favorable result; and must be very gratifying to the friends of the Institution, and the humane and good throughout the State, and speaks well for Dr. Patterson, the medical superintendant under whose direction the treatment of patients is exclusively placed.

By the report of the superintendent we learn that there are, as ascertained by the census of 1850, 442 insane and 617 idiotic persons in the State; and the reasonable supposition is made that many insane have been enumerated as idiotic.

This showing would seem to indicate a necessity for more extensive provisions for the care of the insane, than has yet been made. And the county poor-house system of taking care of the incurable insane is so expensive or else so defective that we think it very properly condemned by the Superintendent.

We have no doubt of the propriety of the State providing Hospital care for all of her insane, yet believe, with a majority of those conversant with the subject, that no one Institution should be extended beyond provisions for 250 patients, which was the original design of this establishment.

The Superintendent thinks it will be capable of accommodating about 300, but when it is recollected that the basement story was only designed to be temporarily occupied for patients, and by but few even temporarily, it will bring the estimates to more closely correspond.

The remarks of the Superintendent upon the medical treatment in the report before us, are judicious, and show a familiarity with the subject, such as we would expect from one of his experience and ability.

We congratulate the people of Indiana upon the success of the Institution, and upon having a free home for the insane, where they may receive the kind attention and skilful management of those who are devoting their whole time and talents to the restoration of the curable, and the amelioration of the condition of those who are unfortunately beyond the hope of recovery.

We can but believe that the steward would find a more extended detail of his disbursements, a safeguard against suspicions of mismanagement, and it would be a satisfaction to the people, who supply freely and liberally the means of supporting the Institution, to know from whom his purchases were made and the prices paid.

ARTICLE VII.

Annual Commencement of Rush Medical College.

The ceremony of conferring the Degree of Doctor of Medicine by this Institution, took place in the City Hall on the 19th of Feb. ultimo, before a crowded assembly of citizens.

The valedictory address by the President of the Institution, Prof. Brainard, was upon Resuscitation as a legitimate aim and object of research. He treated the subject in that comprehensive style and masterly manner which generally mark his public efforts. We are sorry he has declined an application from the Class for a copy of the address for publication.

We append a list of the names of the young gentlemen who received the Degree with the title of their theses.

RESIDENCES.		THESES.
<i>Names.</i>		
Wm. C. Hunt,	Illa.	Human Ovology.
Vincent L. Hurlbut,	Illa.	On Scarlatina, [man Species.
Lewis D. Martin,	O.	Development and decay of the Hu-
Wm. D. Craig,	Illa.	Malignant Growths.
Orvis S. Johnson,	Illa.	On Intermittent Fever,
J. H. Reeder,	Illa.	On Dysentery.
Abram H. Knapp,	N. Y.	On Inflammation.
Franklin Blades,	Illa.	On Fever.
F. M. Crouse,	Ind.	On Arsenious Acid.
Isaiah P. Lynn,	Me.	On Contagion,
Benjamin T. Buckley,	Illa.	Phthisis Pulmonalis,
Geo. A. Bodenstab,	Illa.	Febres Intermittentes.
Jeremiah Youmans,	Wis.	On Menstruation.
Dudley Rodgers,	Ind.	On Etiology.
Stephen C. Gillett,	Illa.	Signs of Pregnancy.

RESIDENCES.		THESES.
M. M. Hoozen,	Illa.	On Respiration.
A. B. Chadwick,	Mich.	On Quinine.
Hiram C. Jones,	Illa.	On Typhoid Fever, [mation.
Wm. M. Hobbie,	Illa.	Indications of treatment in Inflam-
Alexander DeArmand,	Mich.	On Menstruation.
Edwin R. Williard,	Mich.	Philosophy of Nervous Powers.
G. J. Bently,	Ind.	On the Blood.
Walter R. Godfrey,	Ind.	On Chemistry.
Henry D. Adams,	Wis.	On Digestion.
Hugh Marshall,	Illa.	On Intermittent Fever.
John D. Woodworth,	Mich.	On Acute Rheumatism.
L. D. Tompkins,	Mich.	Report of cases in Practice.
T. G. Cole,	Illa.	Periodic and Continued Fevers.
A. F. St. Sure Lindsfelt,	Wis.	Therapeutiques De La Terebinthine.
Ezra M. Light,	Illa.	Hygiene and Prophylaxis.
Ezra Van Fossen,	Ind.	Acute Hepatitis.
M. G. Parker,	Ind.	Typhoid Fever.
Wm. H. Davis,	Illa.	On Diseases of Children.
H. A. Johnson,	Illa.	Malignant Heterologous Tissues.
John Garrison,	Illa.	On Surgery.
Geo. W. Albin,	Illa.	On Uterine Hemorrhage.
James A. Collins,	Ind.	Epidemic Dysentery of Hendricks Co., Ind., in 1850.

ARTICLE VIII.

NOTICE TO SUBSCRIBERS—EXTENSION OF TIME.

As many of our subscribers have written to ascertain the amount of their dues, and it is impossible for them to pay up before the close of the time specified in our last number, during which we would take two dollars per volume in full liquidation of our claims, we have concluded to send with this number, the bills of subscribers made out according to this proposition, and extend the time to the 15th of May next, when if not paid, the additional one dollar per volume for volumes 2, 3, & 4 of the N. W. Med. & Surg. Jour. will be added to the accounts, and the whole placed in the hands of an Attorney for collection.

Please remit, Post-paid, at our risk, and receipts shall be acknowledged, as heretofore.

ARTICLE IX.

Dr. Drake's Discourses before the Cincinnati Medical Library Association, Jan. 9th and 10th, 1852.

We are under obligations to the distinguished author for a copy of this neat duodecimo volume of ninety-three pages.

We commenced reading it as soon as the envelope was torn off and scarcely laid it down until through; though obliged to carry it with us to visit two restless patients who would not be put off. The subject of the first discourse is the history of the early Physicians, Scenery and Society of Cincinnati.

Amongst the first were some noble specimens. The author himself, the only sample left for our inspection, would forcibly impress us with this idea.

The discourse is full of interest and rescues from oblivion a piece of valuable history which no other author could have written.

The second discourse is on Medical Periodical Literature and Medical Libraries. Like the first, it is full of interesting facts and sound reflections.

ARTICLE X.

MISCELLANEOUS MEDICAL INTELLIGENCE.

We would call the attention of our friends to the Card of the Sec'y of the Amer. Med. Assoc'n in another department of the Journal. Let all of our Societies and Institutions entitled, to it, be represented. It will furnish a good opportunity to visit Washington City while Congress is in session to those curious in such matters, as well as to keep up the representation of the North-West, in our National Medical Congress.

A Physician in the interior of Indiana wishes us to announce that he has discovered a specific for Milk Sickness. We can only comply, upon his furnishing us with a full account of his mode of treatment.

It is rumored that the venerable Prof. Mott, is to return to the University of the City of New York, and that Dr. Van Bur-en is to fill the chair of Anatomy made vacant by the death of Prof. Pattison.

Dr. A. F. Stevens of Hanover, Ills., reports in a private letter a case of twins, with distinct membranes and placentæ, in which both children were born by the breech presentation. The boy weighed $9\frac{1}{2}$ lbs., and the girl 8 lbs., making an aggregate of $17\frac{1}{2}$ lbs.

It is reported that Dr. John Bell has resigned the Chair of Practice in the Medical College of Ohio, and will return to Philadelphia.

Profs. Wright and Skinner have resigned their Chairs in the new Medical School in Cincinnati organized last winter, called the Cincinnati College of Medicine and Surgery. Applications for the chair of Chemistry are solicited by Prof A. H. Baker, Cincinnati, O., on behalf of the Trustees.

The Faculty of the Indiana Central Medical College at Indianapolis, has been re-organized. As it now stands, Profs. Deming, Downey and Bobbs retain the Chairs they formerly held. R. J. Patterson, M. D., has that of Anatomy, C. G. Comeygs, M. D. Materia Medica, and L. E. Leonard, M. D. Obstetrics, &c.

Prof. Dalton's course of Lectures in the Buffalo University, has given the greatest satisfaction to all concerned.

It is stated that the number of Physicians in Paris has been greatly reduced within a few years. What the position of Medical matters there will be, under the usurpation, we have not been able to learn.

Several of our cotemporaries are publishing articles upon Spirit Rapping's, Influences, and the like. Since witch-craft has gone out of date in its old form by neglect, we think that it will in its new phase if left alone.

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NOTICE TO CORRESPONDENTS.

Communications and Books for notice should be addressed to the Editors, care of Messrs. Lindsay & Blakiston.

Letters, &c., connected with the *business affairs* of the Journal should be addressed to the Publishers.

Papers for publication must be received *before* the 20th of the month, or they cannot appear in the forthcoming number.

The following Journals have been received in exchange:

American Journal of Medical Science. July, 1853.

Western Lancet. December.

New Orleans Monthly Medical Register.

Southern Journal of the Medical and Physical Sciences.

New Orleans Medical and Surgical Journal.

Medical Recorder.

Western Medico-Chirurgical Journal.

Union Journal of Medicine.

Medical News. Philadelphia.

Buffalo Journal.

New York Medical Gazette.

The Boston Medical and Surgical Journal. (Weekly.)

Stethoscope and Virginia Medical Gazette.

New Jersey Medical and Surgical Reporter.

Transylvania Medical Journal.

Southern Medical and Surgical Journal.

New Hampshire Journal of Medicine.

The London Lancet. (Weekly, London.)

The Medical Times and Gazette. (Weekly, London.)

Dublin Medical Press.

Dublin Quarterly Journal.

British and Foreign Medico-Chirurgical Review.

Journal of Psychological Medicine.

London Journal of Medicine.

Edinburgh Medical and Surgical Journal.

Journal of Psychological Medicine.

London Pharmaceutical Journal.

Edinburgh Monthly Journal.

Journal of Pharmacy.

North Western Medical Intelligencer.

American Journal of Insanity.

The foreign correspondents of the Examiner will please direct their Exchanges and other communications to the care of Tribner & Co., No. 12 Paternoster Row, London, or Mr. H. Bossange, 21 Bis, Quai Voltaire, Paris.

THE
MEDICAL EXAMINER,
AND
RECORD OF MEDICAL SCIENCE.

NEW SERIES.—NO. CIV.—AUGUST, 1858.

ORIGINAL COMMUNICATIONS.

Naval Hygiene. By G. R. B. HORNER, M. D., Philadelphia,
Surgeon U. S. Navy.

This branch embraces a great variety of subjects relating to the health of seamen. On it their strength, spirit and, necessarily, their efficiency depend; without it commerce must suffer, and in time of war the honor and defence of the country could not be maintained against a powerful maritime nation, whose seamen are as brave and numerous and more healthy than our own. It becomes us, then, to consider the means best adapted to prevent this, and, if possible, to render them superior in every respect. At the same time we do that, we must not neglect to refer to the means suitable to preserve the health of our extensive mercantile marine. For these purposes the first means to be taken are those intended to procure vessels properly constructed regarding the comfort and health of their occupants; for, if they be confined to small, filthy and ill ventilated apartments, other means taken may be of no use. Ships of war are often built for sailing and fighting only, merchant ships for beauty and holding large cargoes.

Hence, the quarters, in both, for the crews, and especially for the men and officers of subordinate grades, are very small proportionally to their number, besides being so constructed that pure air is nearly unknown in them. It is even common to witness this in vessels wherein the cabins and saloons, intended for the passengers and officers of the highest grades, are as spacious and airy as they can be made. In no class of vessels are we more struck with these facts than in packets and steamers. In the latter, engaged in trade between the eastern coast of the United States and the western coast of California, I observed this contrast in accommodations. While the cabin and steerage passengers were lodged mostly in separate state rooms and had sumptuously furnished saloons or cabins adjoining, the forward passengers were crowded in berths near the bows or about the fore-castle. Some of them were occupied by two or three persons in each one, and were so short that no man of good height could lie in them at full length. To escape from such discomfort, which was rendered intolerable from the heat of the tropical sun added to that issuing from vast fires of coal, many passengers fled nightly to the highest decks and slept upon them. Of the sufferings of the forward passengers we may form an estimate, when informed that a number of the best accommodated cabin ones deserted their rooms and slept on the quarter deck beneath the awnings, so great was their heat. To ship builders and naval engineers belong the general construction and arrangement of vessels, and we would not recommend any medical interference with them in most matters, or where mere comfort and convenience are concerned. But in things relating to health, courtesy as well as public and private interests demand that medical men should be consulted. Whether these be or not, the former should endeavor at least to have all parts of a ship made salubrious; to have the hatches well placed for both air, light and the escape of effluvia; the air ports of large size, and so situated that they could be opened either in calm or stormy weather without the admission of rain or sea water. For the escape of heated air, animal and other exhalations, the newly adapted ventilators passing through the upper decks in parts not used as gang ways and not occupied by guns, &c., ought to be preferred. These ventilators have tops closed above and open at the sides, and answer the indications above mentioned, and from being of cast iron are very durable.

To ventilate perfectly and expel noxious gases, as well as overheated air, windsails are indispensable. They are very large and long cylinders or bags of canvas, open at bottom and expanded at top into a capacious mouth, presented to the wind, and held open by lines attached to their elongated sides. Hoops within prevent their collapse. These windsails are suspended from the rigging by other lines, and can be let down through the hatches far enough to ventilate the lowest parts of vessels. All those of our navy are thus purified, and made vastly more healthy and comfortable than ships were before the introduction of windsails.

But the part of every vessel most demanding the care of the physician is that used by the infirm, and known in men-of-war as "the sick bay." In those of our country it is almost without exception on the berth deck, either in the bows or amidships between the fore and main hatch. The former place is its location in ships of the line, and frequently the latter is that in vessels of smaller size. In our steamers the machinery will not allow of the sick being kept amidships, and abaft there is no room for them; hence from necessity they have to remain forward. This is the case even in the *San Jacinto*, one of our largest steam frigates, and more than 220 feet long. She indeed has no separate place for the sick; they have to lie near the fore hatch of the berth deck, and are exposed to both the heat of the galley or cooking range just abaft them, and to the intense fires in the adjacent furnaces generating steam, in the hold below. She has no gun deck nor other place of refuge (save the spar one) from such heat, for the halt or sick, by day or by night; and if it rain, or the weather be cold, or the wind strong, they have the unhappy alternative of bearing its chilling blasts, or of closing the hatches and being stewed in steam. From the description by the crew of what they suffered from these causes—the flooding of the berth deck by the sea through the horse holes at the bows of the same deck, the deluging of it by rain, the seas shipped, and the water thrown upon it in the coldest weather to clean it—we can rationally infer, that though she cannot be called a floating hell, she might be well termed a steam purgatory. Of the *Saranac* the same remark might be applied with good reason.

In the English ships of war I have visited, the sick were

placed on one of the gun decks, and on both or only on one side of the bowsprit. This position is most desirable from its being generally the least in the way; but when the men are letting out or heaving in a cable, or the ship is in a heavy sea, plunging deeply and buffeted by waves driven on by a head wind, it is very noisy, and often deluged by the water forced into the ports, seams and horseholes, or those through which the cables pass. The motion, too, in the bows of a vessel, is very great at such times, and renders them altogether unfit for patients ill of low fevers, from the depressing effects on the brain; or for those who suffer much from sea sickness, or who have fractured limbs. In these cases, while ships are at sea, it is always necessary to remove the patients abaft, and I usually place them near the middle of one of the gun decks. While I was in the *John Adams*, on a voyage from Minorca to Naples, thence to Marseilles, and back to the former port, a most striking instance occurred of the ill effects of a ship's motion on a case of the first kind, or that of low fever. The patient was a boy of that island, for the first time at sea, who suffered from excessive sea sickness and intermittent fever, to which he was liable. Accordingly, as the wind was light or strong, the sea smooth or rough, the ship in port or out of it, easy or uneasy, so the type of the fever was of ordinary height or of the lowest kind, and deprived him of nearly every sign of animation. When thus affected, his teeth were covered with dark sordes, his eyes sank, his pulse was rapid and scarcely perceptible, his face livid, and he sank into such a state of insensibility, that he was only to be kept alive by quinine, applications of turpentine and cantharides ointment, and other stimulating remedies. In this manner he lived until he got back to his native place; but when she was about returning to Naples, he could not remain in her, was sent to the Lazaretto of Port Mahon, and there died under the charge of a Spanish physician. Reference has been made to this case in my work on the Mediterranean; but it has been again introduced, as it is finely illustrative of the bad influence of a ship's motion on some patients.

To make the sick more comfortable, it is also very essential that they have a privy convenient to them, and be as little as possible exposed to being struck by the sun; that they should have well made and covered easy chairs with copper pans, which are

difficult of being broken, and require a long time to become corroded. Porcelain pans are too easily fractured, and tin ones very soon are rusted and rendered useless. A hatch directly over a sick bay is of great advantage; it affords plenty of light, admits a windsail, and enables the medical officers and patients—both those affected with disease and those injured by accident—a ready way of egress and ingress. When there is no such hatch, and a person is severely injured, it becomes necessary to drag him during sleeping hours beneath the hammocks of the crew to get him into the hospital. To do this is difficult and painful to him and carriers, from the hammocks being hung only a few feet above the deck, and obliging the latter to stoop very low while they drag the former. Another great convenience is that of having the dispensary and store room adjoining or near the sick bay, so that articles can be had for patients without delay. But in time of war the greater part of medical stores should be below water mark, and secure from damage by an enemy's shot. A single one, and especially an explosive shot, might otherwise smash all the bottles of the medical department and leave no liquids for use. This misfortune might frequently happen in our men of war of the present time, for in all of the corvettes, and in most if not all our frigates, the dispensary is on the berth deck. In former times it was in the cockpit of the last, and below water mark. Want of air and light, and the inconvenient distance of the former from the sick, have probably caused the change of place, besides many annoyances from the numerous store rooms opening into the cockpit, and its proximity to the spirit room and after magazine. When these are open no lights are allowed to be burnt, and of course the darkness prevents the compounding of medicines and other work being done. When they are immediately required, this is a great inconvenience to the sick and their attendants. In time of action, or any other, when the crew are at quarters, the wounded or injured sent to the cockpit must receive attention, and the use of covered lights is then permitted.

With a hospital arranged as above described, patients, unless over-crowded or affected with contagious diseases, will mostly improve under judicious medical advice. Should any be affected in the last manner, they ought to be forthwith sent on shore

where it be practicable, or placed in the most airy and least frequented parts of the decks, either lower or upper. There they should be hung in cots; or hammocks, if there be none of the former to be had; put behind screens, and allowed to hold no communication with any other persons than their nurses and physicians. If small-pox exist it will be very desirable that the former should have had it by inoculation or naturally, or that they be known to be well protected by vaccination. But, should this sovereign preventive have been properly practised among a crew before or after shipment, it is very improbable that they will ever become extensively infected with small-pox. Therefore, every one of a crew in the least liable to it should be vaccinated as soon as he gets on board ship, and while the vaccine matter can certainly be obtained fresh. If it be not, it will prove useless, according to my experience;—for, of the many hundred persons I have vaccinated or caused to be, in various ships of war at sea, scarcely one gave any evidence of having been infected with the virus. The same remark was made by a surgeon of much greater experience than myself. So many failures may have been owing to other causes, as gross diet—the adult state of a great majority of the crews—and their greater unsusceptibility to impression from the hardness of their skins, and loss of sensibility. Some may ascribe the failures to the influence of sea air, but none of these things are known to be facts. This, however, is an acknowledged and well proved one. Old vaccine matter has often failed to produce its peculiar effects on persons ashore with every adjuvant required to insure success. Neither the purest air, nor best diet, nor well adapted clothing and most able medical advice have been of any service. The punctures have, notwithstanding, healed and left no cicatrices, and the vaccinated have remained unprotected from variolous contagion. To escape it in very cold weather is most difficult, from it being necessary then to make vessels of comfortable temperature; from their crews being thickly clad, and seldom changing their clothes; staying much below decks; crowding together in warm places; closing ports and hatches, and stopping ventilation. When this cannot be done, they become exposed to too much cold, suffer from pulmonic complaints, rheumatism and chilblains, and hence have a choice of the two evils—contagion, or the suffering caused

by these affections. Sometimes a ship may be kept very close below and open above, as was the Brandywine in the winter of 1830, at New York. To that fault we ascribe the complication of the above diseases herein suffered. In her were mingled cases of small pox, scarlatina, typhus fever, and every other affection it seemed which could be induced by intense cold. Luckily some of the former cases were sent to the naval hospital before the crew were extensively infected. But by the time the ship left port, in March, she had lost one man from scarlatina, sent thirty altogether to the hospital, and had forty more on the sick list. In a few days after sailing, three more persons died of the same disease and typhus, and in the course of a few months others of the crew had been similarly lost. Among them was the sergeant of marines, Clargis, a noble looking, accomplished soldier, who had had a violent pneumonia terminating in mortification of the lungs. His sufferings were indescribable; so great and protracted were the dyspnoea and difficulty in expectorating the exceedingly foetid sputa which for day after day were discharged, to the disgust of the whole crew.

So much was due to the fitting out of a man of war in winter! a practice ever to be condemned or avoided. There are two other practices in ships almost as condemnable; one is, that of *dry holy stoning*, or rubbing the decks with huge stones and sand; the other practice is that of deluging the former with water in the coldest weather, even when it freezes as soon as thrown upon them. Dry holy stoning is intended solely for good appearance and cleanliness, washing decks for the same purposes and to keep them tight. In doing this the men generally go barefooted, and suffer proportionally from the conjoined ill effects of cold and moisture, inducing rheumatic and pulmonic complaints. By holy stoning the chief mischief is done to the eyes and lungs, which inhale the impalpable sand floating in the air, and become irritated. To this cause is attributed the death of the master-at-arms belonging to the vessel named, and who became affected with *phthisis pulmonalis*. Cases of *ophthalmia* arise and are aggravated from the same cause. But when the sand is wet it may be rubbed on the deck without injury; and in mild weather washing them does little harm—unless on the lower ones—from their continuing wet a long time, and may be

of advantage, from the men getting their feet cleansed, who, if the decks were not washed, would seldom have them so. To obtain a like condition of the whole person, bathing in fresh or sea water should be practised by a crew, whenever it be of moderate temperature. Though buckets and tubs sufficient could not be had for a large number of men, they might bathe on a beach, or at sea, by having boats rowing about them and letting down sails into the water by the four corners for the use of inexperienced swimmers, as I have often witnessed, when the sea has been calm. Bathing, besides being a very healthy practice, from its tonic and cleansing effects, is a fine amusement, and for this reason, if no other, ought to be encouraged. Like music, dancing, playing at dice, chess, draughts and dominoes, it takes away the monotony of sea life, makes time pass pleasantly, and creates good will in a crew. Water is still more highly recommended for drinking, and unless it be pure, it is vain to expect good health in any vessel on a voyage, and cut off from the means of procuring substitutes when it is impure. When good, it is the only drink seamen can use freely with general impunity; and nothing laid in for their sustenance makes them so efficient and so comfortable. It is an indispensable article with them, and one for which no substitute can be found. This is not so with any other; if the pork be bad, the beef may be good; should the bread be mouldy and wormy, the rice may be sound; if the cheese be spoiled, an additional quantity of butter can be allowed. The same may be done with any other part of the rations. Bad water, too, may be as injurious in port, and sometimes more so than at sea, when sailors at the same time indulge in eating fresh meat, fruits and vegetables, especially the crude, unripe and acid ones. If these be eaten at the same time that brackish water is drank, or that obtained from fountains and rivulets just after heavy rains, and charged with earthy matter, they never fail to produce bowel affections. The greatest number which have ever come under my notice have been caused in this manner; and I always expect as a matter of course, when between the tropics, or it be summer anywhere, to have at once a large number of such affections to treat. But by far the largest number have been seen among crews drinking the water of the La Plata, or that taken from its shores. Neither should it be used before

it is purified by being allowed to work, or by straining, or throwing into each cask a small amount of powdered alum, which is thought at Buenos Ayres the best purifier, and ought to be proportioned to the quantity and impurity of the water. For the consumption of a small number of persons, dripstones may furnish as much pure water as they may need for drink; and in the Mediterranean, from the vast quantity of porous sandy limestone found on its shores and islands, these stones can be easily obtained at a low price. At Malta they are very plentiful, and so cheap, that every vessel touching there ought to lay in a supply for both present and future use; for after they have been used for some time, the impurities of the water strained fill their pores and impede its flow, so much as to prevent this being abundant. Should a crew be large, other means must be adopted, and none answer so well as large casks, set on end like a common scuttle-bat, and having either a strainer at bottom made of several layers of bunting or of hair cloth, resting on a grate and covered with gravel and sand; or having a patent strainer of silver gauze, with a clean sponge fixed inside of it. The frigate *Savannah* had a strainer of the latter kind, which was attached to the scuttle-bat when necessary, and was thought very good. For the use of my patients in the *Delaware* I employed a strainer of the former kind, holding only five or ten gallons of water, and for the same purpose in the *Savannah* used a large stone filter, which had a double bottom and a chamber above, with a hole in the centre into which a sponge was placed. The water ran through this, thence percolated through a layer of sand and a strainer beneath—got into the lowest chamber and was drawn off by a stop-cock in a limpid, pure condition. For a sick bay I prefer this filter* to any other, from its convenient size, easiness of being cleansed and repaired, and so well answering the purpose for which it is designed. Other filters perhaps may be obtained to answer as well, and there is no excuse for a vessel leaving, at least any of our ports, without having some of them. In steamers there is less demand for them, from the great ease with which their immense fires can by means of retorts or alem-

*It is said to be one of Wainwright's of Staffordshire, England, which have gravel and charcoal mixed with the sand, contained in the middle or closed chamber.

bics, convert salt water into fresh. Whether water thus distilled is as wholesome as that impregnated with some saline or earthy matter, is a subject of doubt, as in some persons it has caused diarrhoea, and it, moreover, when so purified, is insipid and unpalatable.

Of the best methods of preserving and purifying water, much has been written. Some have recommended a small amount of quick lime and sulphuric acid to be put into each cask; some have used muriatic acid, others calcined lime or pure charcoal, with a little sulphuric acid; others have put in powdered charcoal alone, or charred the casks inside. This is a very common method of purifying them when old, and though it may not have any great efficacy in preserving the water, it certainly has some in preventing the decay of the casks. The charcoal itself, likewise, when put into the water, acts both as an antiseptic and destroyer of foetor arising from the formation of sulphuretted hydrogen. But I prefer filtrating impure water through charcoal, when confined in a chamber or other place suited to hold it and prevent its rising to the surface, as its lightness will certainly cause it to do when thrown loose into the water.

Provisions.—Such a variety of them are now used at sea, that it would be superfluous to enumerate them or do more than write a few remarks respecting some of the principal. Of these the two most used are bread and meat. The former in all ships is commonly biscuit made of wheat flour,—sometimes of this and rice mixed, when the former is very dear, as in Brazil. The hardest bread I ever saw was obtained at Bahia, and was said to have been thus made. It was too hard for any ordinary teeth to chew, and required hammering to be got into fragments. It is hardly necessary to say that such bread, and the wormy, mouldy and sour, should be condemned. Indeed biscuit generally is difficult of mastication and digestion, from its toughness, and is neither savory nor wholesome, unless dried and crisped in an oven just before it is eaten. Next to bread, rice may be ranked as the most valuable vegetable food. Though it is insipid, and constipates most persons, it can be easily rendered palatable by seasoning, and prevented from producing costiveness by mingling it with stewed fruit or molasses. For the sick

I have found rice invaluable in bowel affections, either in the form of a gruel or drink, or when simply boiled and flavored with any pleasant condiment. In this state my patients, almost without exception, have preferred it to arrow root or any other of the farinaceæ, which have a flatness of taste—evils to be overcome only by high seasoning with wine, sugar, lemon juice and spices, rendering them as rich as prohibited meats. Of these, any which are preserved by being first cooked—by boiling or roasting—are to be preferred for the sick or well, to all dried ones, or any preserved by being put into brine, either of salt alone or that and nitre. Both of these articles so impregnate flesh of all kinds as to make it hard and insoluble in the gastric juice. It then creates irritation of the stomach, causes unnatural thirst, and is altogether difficult of assimilation, besides impregnating the system with a superabundance of saline matter. The first ill effects observed afterwards are ulcers in the mouth, phlegmous in different parts of the body and limbs, and finally scorbutic symptoms. To avoid, then, these and other evils resulting from salt provisions, as little of them as possible ought to be used, and when they are, they should not be cooked before they have been first soaked at least twenty-four hours in fresh water, and subsequently washed in it after it has been changed. Preserved fresh meats are dear in appearance, but if we calculate their superior niceness and wholesomeness; their freedom from bone, gristle and other useless parts; their not requiring more fire than enough to rewarm them, and the very little space occupied by the canisters containing them; the very perfect manner in which these meats are kept sound for an indefinite time, and the vast amount of salt meats lost from corrosion by the brine, and putrefaction from various causes, we may very safely conclude that the latter meats are dearer than the fresh preserved. On the coast of Brazil, where these cost 45 cts. per pound, I found them decidedly cheaper than live fowls at six dollars per dozen, from the great mortality among them at sea. Even when they do not die, they often become sickly, waste away, and afford poor nourishment. The same may be said of other live stock, save, perhaps, pigs; and when not correctly, it is in rare instances,—from fine weather and great care in feeding. When this is not done, they are illy watered—the vessel labors much, tosses

them about and keeps them wet; they soon droop, get feverish, and become unfit for use by the sick or well.

With fresh preserved meats we must likewise recommend vegetables which have been cooked in a similar manner and hermetically sealed in tin cases and bottles. There are also a large quantity of vegetables now reduced by heat to a very dry state and sealed in tin boxes, but when taken out and put into boiling water, resume their wonted freshness and plumpness. The best I have seen were prepared in France, and had been sent to the Chief of the Bureau of Provisions and Clothing of the Navy, for inspection and trial. They gave such satisfaction that we hope they will come into general use and be prepared on a large scale in our own country. In addition to the above articles, preserved soups, custards and milk ought to be laid up for sea stores, at least for short voyages, and as is now practised in some packets. By the aid of ice it may be easily effected, though the articles be not put in sealed vessels. In ships sailing from countries where ice abounds, it might be stored away at a very low price, in sufficient quantities to last for months, without any great inconvenience as regards room. On my passage in the *Crescent City* from Chagres, all our meats were said to have been preserved on ice laid in at New York, abundantly enough to last both during her outward and homeward passage. Of spirits, wines and malt liquors, it is necessary to procure a supply for culinary and medicinal purposes. Habit, too, renders them requisite for some persons, and the palates of others may make them indispensable as articles of luxury. But for the treatment of invalids, I have by long experience found them of minor importance with respect to articles decidedly medicinal. As diffusible stimulants in cases of emergency, they are serviceable; but as tonics or medicines, used to produce a permanently invigorating effect, they are much inferior to the vegetable bitters, and if any stimulation be required, it is much better to infuse these in a small amount of spirits mingled with water. This also is preferable, because it prevents patients from having it in their power to say that the "doctor recommended them to drink spirits," and to urge this as a plea for their continuance when well.

The next subject claiming our notice, and the most important to the sick, is the laying up of all the medicines, implements

and appliances needed for them. In their selection we must determine how many are needed, and next the quantity of each one which may probably be required. In determining this we must be governed by the space allowed to accommodate them, the number of the crew, the length of the proposed voyage, and the amount of sickness anticipated. The ability or inability to procure a re-supply where the vessel is bound, and the abundance, cheapness or dearth of certain medicines there, ought also to regulate the quantity to be primarily obtained. It is very bad economy to fail getting a full supply of articles which are exorbitantly high abroad, and equally bad to lay in such at home when they are perhaps native products of the countries to be visited and correspondingly cheap in them. This is a familiar blunder, and committed in many vessels; and the only good reason for it is that it encourages domestic commerce and causes money to be expended at home. While laying in medical stores also, we ought as much as possible to obtain the most efficient of every class—to get them in the most concentrated form, so as to occupy the least space—to put aside crude articles and procure their active principles—and to have all medical stores, whether in drawers or boxes, well secured against rats, mice and vermin, by means of tin or other metals, and to have these well painted externally, to prevent corrosion by rust. The medicines likewise should be put in packages and bottles, perfectly air and water proof, and adapted in shape to the places wherein they are to be kept. As a general rule, the former store most conveniently and take up least space when square. It will be found in fitting up either a medicine chest or a dispensary, that when round they require about one-half more room—a vast deal to lose when not enough is allowed, although storage is made in the most economical method. One of the strongest objections to laying up an overplus of medical stores, or not packing them closely in a dispensary or chest, is that it makes it necessary to put the surplus in the hold. When this happens, they are apt to be lost and pillaged; they cannot be got for immediate use without inconvenience; and give so much trouble to those having charge of the hold that they complain, and quarrels result between them and the persons belonging to the medical department. From medicines being kept in the hold I have frequently,

under the belief that there were none of a certain kind in it, obtained a fresh supply, when an abundance was there, as proved by their having been subsequently found. On one occasion I was positively informed that no alcohol and Epsom salts were in store; a re-supply was ordered and purchased, and after it had been brought on board, four gallons of the first article and a barrel of the other were discovered in that part of the hold called the spirit room. The prohibition of lights in it makes such oversights more easy; but in the latter instance it was attributed to the inscription on the head of the barrel having been covered with whitewash.

In procuring medical stores, we should likewise take into consideration the climate wherein a vessel will have to cruise or remain longest. Accordingly, if the climate is to be a cold one, we ought to lay in a full supply of all articles adapted to the treatment of rheumatism, pneumonia and other affections caused by cold. If the climate is to be a hot one, we should get an extra supply of mercurials, opium, saline compounds, acids and other remedies suited for miasmatic fevers, dysentery, diarrhoea, cholera and affections incidental to warm latitudes. In temperate climates, when we are to have an alternation of heat and cold, as in our own, we must of course obtain a supply of medical stores adapted to both. The same ought to be done in regard to clothing, and seamen of every class should be provided with such as may enable them to be well protected in any change of weather. From a want of information concerning the dampness and chilliness of that on the coast of California, it must have happened that a large amount of summer clothing was sent to our squadron there, instead of winter clothes, and occasioned great discomfort to the seamen during my stay on that station. For hot weather linen is most comfortable; but cotton is preferable, from its medium quality between the former and woollen goods, as well as for the much greater quantity to be bought for the same money. Cotton, also, does not, like linen, allow perspiration to be suddenly checked, nor does cotton so absorb perspiration and remain sodden with water. Hence muslin sheets are infinitely superior to linen for sea use. For overcoats, in frigid regions, woollen cloth is indispensable, but in rain, gum-elastic and oiled are preferable, from their lightness

and superior impermeability. In sultry latitudes, the last named is to be preferred to the second, from its being both waterproof and not adhering together so closely when one part touches another, that it becomes inseparable or cannot be drawn asunder without being torn and spoiled. A vast amount of gum elastic cloth is thus ruined. From its neatness and flexibility, however, it is an excellent article for mattress covers, counterpanes, capes, coats, cloaks and pantaloons in damp and mild climates, and may be very useful in the most sultry, when care is taken to keep apart the different folds and to prevent any portion of the side on which the gum is spread from touching any other, when the articles are laid by and not in use. Considering how much these waterproof clothes contribute to comfort and health, it is wonderful that they have not yet come into general use for sailors, and that none are provided by Government for them. They make much less use of gum-elastic shoes, which are so much worn on land, and so indispensable in keeping the feet dry. When gum-elastic overshoes cannot be got for this purpose, an excellent substitute will be found by wiping off all dirt and blacking from shoes or boots, and then several times smearing them with a composition of gum-elastic clipped to pieces, softened with pure spirits of turpentine and dissolved by boiling in whale oil or some other animal one. For the soles, several coats of copal varnish will answer the same purpose; and this is to be preferred, from its giving them greater firmness and durability.

Besides the ordinary articles of the *materia medica* to cure disease, we have to get a supply of others to prevent it, or those termed disinfecters. The most commonly used, and one of the most efficacious is chloride of lime, but it is objectionable from its great bulk and weight proportioned to the amount of chlorine it contains, and from its deliquescing when exposed to moisture. The other chlorides, as those of zinc and lead, are therefore preferable; but for instantaneous disengagement of chlorine I prefer the mixture of table salt, sulphuric acid and black oxide of manganese in due proportion—that is, having three parts of this to four of the first article and four of the second one, diluted in four parts of water. Sulphuric acid, also, poured on nitre, disengages a large amount of disinfecting gas or nitrous acid fumes, and constitutes the famous one of Dr. James Carmichael Smith,

of Dublin. The proportion is a half fluid ounce of the acid to two drachms of the salt. The burning of sulphur and nitre together, the fumes of gunpowder, tar, tobacco and vinegar, and white washing with slacked lime or chloride of lime, may likewise be useful; and we may employ Labarraque's solution of chlorinated soda, which is certainly good to destroy the factor of sores and wounds. We also may use Sir William Burnett's solution of the chloride of zinc, and yet not have a healthy ship if she be not cleaned, particularly in the hold, where such accumulations of noxious substances collect. No disinfecting agent could be got to counteract their deleterious action on a crew, and all the patent air pumps which could be worked by them could never throw out of a ship thus loaded with filth all the poisonous gases generated in her during a long sojourn in a hot climate. Nor when small pox or any other truly contagious disease is prevalent on board, can we trust exclusively to any such means for disinfecting the air in a vessel, and rendering it innocuous, as well as inoffensive to our senses.

Experimental Researches applied to Physiology and Pathology.
By E. BROWN-SÉQUARD, M.D., of Paris.

(Concluded.)

XXXI.—THE AUDITIVE NERVE IS A NERVOUS CENTRE.

In an anatomical point of view there is no doubt that the auditive nerve is a nervous centre. This is proved by the fact that cells of gray matter are found, not only in the terminal part of the nerve, but also in its trunk, in many animals, according to the researches of Stannius, Corti, Kölliker, and myself.

In a physiological point of view, the fact I have discovered (see Art. V. p. 21,) viz., that any injury to the acoustic nerve produces turning, is sufficient to prove that it is a nervous centre.

The degree of pain produced by an excitation of this nervous centre appears to be as considerable as that caused by a similar excitation of the trigeminal nerve. I will publish soon an account of the strange effects produced in different parts of the body in consequence of an injury of that nervous centre. I will merely say here that, after such an injury, there are muscles which

appear to be slightly paralyzed. Besides, there seems to be a notable hyperæsthesia of the skin everywhere.

Flourens has found that a section of the semi-circular canals in birds and some mammals produces a peculiar disorder in the movements of the head, and, in some cases, turning. He says that the auditive nerve must be considered as composed of two nerves: one going to the semi-circular canals and possessing a peculiar power on the movements of the body, and the other, the vestibular or true auditory nerve. What I have found on frogs is in opposition to these views. A section of the semi-circular canals, in these amphibia, does not produce any effect on the movements of the body, and the slightest excitation of the true auditive nerve is sufficient to produce pain, hyperæsthesia, turning, and other strange effects on many muscles of the body.

I have sometimes seen turning produced after the mere laying bare of the kind of bladder, containing the terminal part of the auditive nerve, in frogs. So slight may be the excitations on that nerve sufficient to produce turning, that very likely turning after the laying bare of that bladder was the result of some slight mechanical injury of the nerve. The rapidity of turning and the smallness of the circle then described are in proportion to the degree of injury to the nerve. When the two auditive nerves are injured, the animal turns on the side most injured. Sometimes, instead of turning, the animals roll around the longitudinal axis of their body; this takes place in very strong animals after the terminal part of the nerve has been entirely crushed.

In frogs deprived of their cerebral lobes, the same effects are produced after injuries of the auditive nerve, as in un mutilated frogs.

XXXII.—ON APPARENTLY SPONTANEOUS ACTIONS OF THE CONTRACTILE TISSUES OF THE ANIMAL BODY.

All the contractile tissues of the animal body (the muscles of the trunk and limbs, the muscular layers of the digestive canal, the iris, the uterus, the dartos, the cellular tissue, etc.) present, sometimes, apparently spontaneous contractions. I give this name to contractions which are not the result of an external

excitation or of an excitation produced by the nervous system on the contractile tissues. These contractions may be permanent or momentary, rhythmical or irregular, slight or very powerful. One of their causes, if not their only cause, appears to be an excitation directly produced on the contractile fibres by the carbonic acid existing in the blood.

1. *Contractions in the muscles of the face after a section of the facial nerve.*—My friend Dr. Martin-Magron and myself have discovered that after the section of one of the facial nerves, on a rabbit, the face becomes very quickly deviated, not on the healthy side, as it is known to be in man, but, strange to say, on the paralysed side. The deviation, very slight at first, increases gradually during one or two weeks, and then it is so considerable that the middle of the lips is at a distance of four, five or six lines from its natural situation. There is an evident state of contraction in all the paralysed muscles. When the animal is excited, or when its respiration is somewhat disturbed or prevented, the paralytic muscles tremble, and sometimes they have rhythmical contractions and relaxations.

The contractions of these muscles may be so considerable that the bones themselves, and, secondarily, the teeth, may be deformed. In one case, on a rabbit which I had kept living twenty-one months after the extirpation of one of the facial nerves, not only the superior and inferior jaws were by far less developed on the paralysed side than on the other, but the anterior part of the superior maxillary bone was deviated towards the paralysed side, so that the middle line of the roof of the mouth was curved and presented a great concavity on the paralysed side and a corresponding convexity on the other.

When the two facial nerves have been divided, there is no deviation, but there is an evident state of contraction in all the paralysed muscles, particularly around the lips.*

When one of the facial nerves is divided on a dog, on a cat, or on a guinea pig, there is generally no deviation on either side. But very frequently there are convulsive movements, and sometimes rhythmical contractions, in the para-

* Dr. Martin-Magron and myself have found that death occurs from inanition in all the species of mammals on which we have divided the two facial nerves. After the operation they cannot swallow: we do not know why.

lyzed side of the face. One of these two kinds of movements always exists in young cats. They are increased, or produced when they do not exist, in dogs and guinea-pigs, almost every time we prevent the animal from breathing freely. Once, on a very vigorous guinea pig, upon which one of the facial nerves had been torn away, I saw alternate contractions and relaxations taking place, without a relapse, for eight or ten days after the operation in the paralysed muscles. After that time, these tremblings appeared only when the circulation and the respiration were rendered very active, or when the respiration was prevented or diminished. In the case of an impaired respiration, the strength and frequency of these movements were in proportion to the degree of asphyxia. During many months, the same phenomena existed in this animal.

I ought to say that in all the experiments above related, the nerve could not have any share in the movements, because, the fifth day after the division, or after the extirpation of a portion of it, the peripheric part had entirely lost its vital property.

In man, as Dugès justly remarks, as long as there is no attempt at movement, voluntary or emotional, the face remains without any deviation, in cases of facial hemiplegia, which have not lasted a long time.

2. *On spontaneous rhythmical or irregular contractions in muscles of animal life, after death.*—It is a very important fact in connection with the theory of the action of the heart, as I will try to prove hereafter, that other muscles, and particularly muscles of animal life, are capable of having rhythmical movements. This fact I have discovered in the following cases:

a. After the division of the nerves of the ischiatic and lumbar plexuses, on one side, in mammals, if we suddenly asphyxiate the animal, we see, at first, convulsive movements in the three limbs and in other parts of the body not paralysed. After one, two or three minutes, these movements cease, and there are only some tremblings in the muscles of these parts. The paralysed limb has no movement at all during one or two minutes, after which time, suddenly, contractions in many bundles of muscular fibres partially take place. In the same bundle the contractions sometimes appear to come regularly one after the other. In

some cases I have seen, besides these tremblings, movements of the entire limb, consisting of some successive flexions and extensions of the limb, and after these movements had ceased, contractions limited to various bundles of fibres appeared. In these cases the action of the muscles began very late after death, and once, only six minutes after the beginning of asphyxia, which lasted two minutes and a half.

b. Nearly the same movements of which I have spoken as existing frequently in the face, during life, in rabbits and guinea-pigs, after the section of the facial nerves, exist always, either during agony or a little after death. They are generally produced by partial contractions and relaxations of the different bundles of fibres of the various muscles. It is rare to see all the bundles composing one muscle contracting together. These phenomena last five, six or eight minutes after the last respiration. There are also such movements in the face during agony and after death, when the nerves have not been cut and when there is no paralysis; but then the movements appear later and do not last so long as in paralysed muscles.

c. I have seen in many rabbits apparently spontaneous rhythmic contractions in the respiratory muscles. In about ten rabbits, out of forty or fifty, the following phenomena were very decided; on the others they were slight, and sometimes very slight, but in all cases a part of them always existed. I open the abdominal cavity and expose the bowels to the action of a cold atmosphere, so as to lower the temperature of the animal; after some minutes I make a little opening in one side of the chest, and, at last, after a few minutes more, I open largely one side of the chest. Generally, in such circumstances, the respiratory movements continue to take place with energy. I then take away the sternum and divide the two diaphragmatic nerves. The movement of the diaphragm, nevertheless, continues, and it exists rhythmically together with the movements of the other respiratory muscles. Six, eight or ten minutes afterwards the movements of the diaphragm are still regular, (there are from five to twenty contractions in a minute;) the intercostal muscles present then only partial contractions. The different bundles of fibres of these muscles contract separately one after the other, but the same bundle has generally regular contractions and re-

laxations. At that time I destroy the spinal cord, and see that the movements of the diaphragm and of the intercostal muscles are not changed after this operation; they last for nearly a quarter of an hour, and in some cases much longer; their regularity subsists. In the diaphragm, long after the general movement has stopped, there are regular or irregular contractions of many bundles of fibres for one, two, three hours, and sometimes more.

3. *Deviation of limbs produced by a contraction of paralysed muscles.*—In pigeons, after the destruction of all the lumbar part of the spinal cord, the two posterior limbs are completely paralysed. The muscles then are soft, and the different parts of the limbs do not resist at all, when we try to put them in flexion or in extension. But after a few days the paralysed muscles become harder, and after a few weeks there is an evident state of contraction in them. The limb is generally kept in a state of extension, and deviated on one side or the other. The deviation becomes considerable after some months.

Very likely it is owing to the same cause that club-foot and other deviations are produced in embryos, after a destruction or an absence of development of the spinal cord.

4. *Rhythmical movements in the eye of the Ink-fish.* (*Loligo sepia*, L.)—The ciliary muscle so well described by Dr. W. Clay Wallace, of New York, in the eyes of superior animals, is strongly developed in the ink-fish. After an eye of this mollusc has been separated from the body, I have sometimes found very singular and perfectly rhythmical movements produced by the ciliary muscle. These movements consisted in alternative contractions and relaxations of some parts of that muscle. At every contraction a notable depression was produced in one portion of a zone corresponding to the circumference of the cornea.* In one case I have found four times in fifteen minutes the same rhythm existing in one part of the ciliary muscle. At each of these four examinations I have found sixteen contractions in one minute.

5. *Spontaneous Contractions of the Uterus.*—I have seen hundreds of times the uterus or its cornua, full or empty, contracting to appearance spontaneously, after the death of rabbits and other animals, at a time when the spinal cord had entirely lost,

* The eyes had not been opened.

not only its reflex power, but also the power of acting on muscles when directly excited by galvanism, by warmth or mechanically.*

I have also seen movements taking place in the uterus and in its cornua, in recently dead animals, the spinal cord of which I had destroyed in all its length. The same movements I have found after I had taken out from the abdomen of a living animal the whole uterine apparatus. I have found sometimes that after I had put a ligature around the trachea of guinea pigs, which were at the end of gestation, parturition took place and was produced by three causes: 1st, a direct excitation of the spinal cord by the venous blood; 2d, a direct excitation of the uterus by that blood; 3d, a reflex action of the spinal cord. In two cases I have seen delivery taking place after the action of one only of these three cases, namely, the direct influence of black blood on the uterus of the Guinea pigs, the spinal cord of which I had destroyed from the sixth costal vertebra to the sacrum. The more complete and sudden is the asphyxia, in a rabbit or a Guinea pig, during labor, the more certain will the delivery take place.

Dr. Tyler Smith speaks of a peristaltic action of the uterus, which may expel the child when the mother has died during labor, undelivered. He has not attempted at all to explain that con-

* Dr. Tyler Smith, in his very original book on Parturition, (London, 1849, p. 40,) says that "a slow reflex action of the uterus may possibly continue long after the rhythmic respiratory actions have ceased; as long, indeed, as the body retains its warmth." There is a great error in these lines about the relation between the warmth of the body and reflex action. We may observe reflex actions even in animals that have lost 10, 12 or 15° Cents. (18, 22 or 27° Fahr.,) of their temperature, and, in certain circumstances, these actions may be, then, more powerful than if the temperature of the body was normal. For instance, if we decapitate an animal after having put a ligature around the carotid and vertebral arteries, we find, when pulmonary insufflation is made carefully, that two important phenomena take place—one is a gradual rapid loss of temperature, if the atmosphere is cold (this is the well known fact discovered by Sir B. Brodie,) and the other is a gradual and considerable increase of the reflex faculty. It has been in such cases that I have found the greatest degrees of reflex power in mammals. The nervous power accumulates to such an extent in the spinal cord, that if we pinch the skin in any part of the body, but more particularly on the chest and on the anterior limbs, a reflex respiratory movement takes

traction, i. e. to find out its cause and the circumstances which favor or are opposed to its existence; besides, he has not demonstrated that the peristaltic contraction is entirely independent of the nervous system.

6. *Spontaneous rhythmical movements in the crop and œsophagus of pigeons and other birds.*—I have found that if the crop of a bird, and more particularly of a pigeon, is opened during digestion, some rhythmical movements are frequently seen in it and in the œsophagus. Ordinarily these movements are perfectly regular. They begin in the upper part of the crop, and are propagated from there to the œsophagus. If the animal is asphyxiated, these contractions become very energetic. Their ordinary number, in a minute, varies from ten to twenty.

I have ascertained that these rhythmical movements take place as well in a crop and œsophagus separated from the animal, as in these same parts left *in situ*. Therefore, the nervous centres are not the source from which originates the excitation which acts on the muscular fibres to put them in contraction.

7. *Spontaneous movements in limbs of persons who have died of cholera.*—It is known that after death by cholera, the whole body, and more particularly the limbs, have sometimes very considerable movements. In some cases I have seen alternative movements of flexion and extension of the arms or of the legs, even three hours after the cessation of the beatings of the heart. Physicians who know how quickly after death the nervous system loses its vital powers, will admit easily that these movements cannot be the result of an action of that system. I have ascertained on more than sixty bodies of men who died of cholera, or of various other diseases, that a short time before, or a very short time after the cessation of the beatings of the heart, no reflex action was produced by the tickling of the sole of the foot. The greatest duration of reflex action that I have observed after death has been in a case of cerebral apoplexy. It has lasted thirteen minutes after the last breathing, and about eight minutes after the last beating of the heart. Dr. Bennet Dowler has recorded many curious facts (observed in cases of death from yellow-fever, cholera, etc.,) from which he concludes also that the movements taking place in the limbs are not reflex actions.

I have found that, in general, the more sudden and complete

has been the asphyxia before death, by cholera, the more the limbs are moved after death. I have found also that it is in patients who have died during the algid period that these movements are ordinarily found.

These facts, as I will show hereafter, appear to prove that these movements, like the other movements, of which I have previously spoken, are excited by carbonic acid alone, or together with the poison of cholera.

8. *Spontaneous contractions of the bowels, the bladder, the iris and other parts of the body.*—It is known that frequently at the time of death, many of the contractile tissues of the body are put into contraction. I can go farther and say that it is so with *all* the contractile tissues; and that, contrary to the general opinion, a nervous action is not necessary for these contractions.

There are contractions in all the following organs or tissues during agony and after death: 1, the muscles of animal life; 2, the sphincter of the anus; 3, the respiratory muscles; 4, the iris; 5, the digestive canal (in all its length); 6, the urinary bladder; 7, the uterus; 8, the scrotum, (dartos); 9, the gall-bladder; 10, the ureters; 11, the seminal vesicles; 12, the bronchial tubes; 13, the skin; 14, the blood-vessels; 15, the lymphatics; 16, the cilia.

As to the skin, in many cases the so-called *goose-flesh* (cutis anserina) takes place a little before or little after death, although the body has not yet become cold. I have seen it very strongly marked on the inferior limbs of a paraplegic who died of a softening of the dorso-lumbar part of the spinal cord. It results from this fact that the cellular tissue is able to contract from the same cause which produces contractions at the time of death, in muscular tissues—that is, very likely, carbonic acid.*

* Kolliker has recently discovered fibro-muscular cells—that is, muscular fibres of organic life—in the skin, and he maintains that the *cutis anserina* is produced by these fibres, and not by the cellular fibres. I have published facts which, I think, prove conclusively that the contractions in the skin are in a great measure performed by the cellular tissue. (See *Comptes Rendus de la Soc. de Biologie*, 1849, t. i. pp. 134 et 157, et 1850, t. ii. p. 132.) Since that time, I have found that in some cartilaginous fishes, in which the iris does not contain any muscular fibre, and is composed of cellular tissue, this membrane may be the seat of considerable contractions; so that I consider it as perfectly certain that the cellular tissue (at least in some organs) is contractile.

Besides, I have found contractions of the cellular tissue of the skin of the face, in animals killed by asphyxia, and on which the facial nerve had been divided for many days or weeks.

In the same man who had a paraplegia, and of whom I have just spoken, I saw very strong contractions in the dartos, during agony.

In animals suddenly asphyxiated, after the destruction of the dorso-lumbar part of the spinal cord, the seminal vesicles sometimes contract, and a slow ejaculation takes place, although there is no erection.

In the sphincter of the anus, when it is paralysed, there are only slight contractions, but they are evident.

The urinary bladder, during agony or after death, sometimes contracts so much, even when it is paralysed, that all the urine it contains is expelled.

The ureters present very strong contractions, in animals recently killed by asphyxia, and these contractions in some cases are rhythmical. The same movements are seen when all the urinary apparatus is *in situ*, and when it has been removed from the abdomen, and therefore separated from the nervous centres. The contraction begins at the kidney and thence is very quickly propagated all along the ureters to their termination in the bladder. Among the contractile tissues, that of the ureters is one of the most irritable.

Bidder and Schmidt, of Dorpat, have recently found that after the division of the two pneumogastric nerves, there is more carbonic acid expelled by the lungs than usual. This fact is very important, because if the theory, which I am about to propose, be true, we ought to see a contraction produced in the bronchial tubes, in consequence of the unusual amount of carbonic acid that they contain. Now, such a contraction certainly exists then, and it is it which causes the well-known difficulty in the expansion of the chest, which exists in that case.

In the eyes, even when they are paralysed by the section of the three nerves of the iris, (the third pair, the sympathetic, in the neck, and the ophthalmic nerve,) the pupil may, at first, contract and afterwards dilate very much.

The lymphatics and the thoracic duct contract very much after death. I have, sometimes, in cases where these vessels were

dilated by chyle, introduced a glass tube, two lines in diameter, into the thoracic duct, and I have seen the liquid ascend into the tube, and in one case run out, although the tube was five inches high.

The cilia are known to have movements independent of the nervous system.

The gall-bladder contracts little and slowly, but evidently, after death, even when it has been, with the liver, removed from the abdomen and separated from the nervous centres.

The choledoch duct and the pancreatic duct, as my friend Cl. Bernard has discovered, have rhythmical contractions during life, in birds. I have found these movements perfectly regular after I had removed all the viscera from the abdomen. Therefore the cause of these rhythmical contractions is not in the nervous centres.

The bowels have considerable contractions during agony and after death; and I will prove hereafter that the cause of these movements is not the influence of cold, or that of air, when they are exposed to the atmosphere. Nurses, in France, are in the habit of judging that death has positively taken place, when, after the cessation of breathing, they see urine and fæcal matters expelled. This expulsion depends upon the contractions then taking place in the bladder and in the bowels.

9. *Causes of the apparently spontaneous contractions during life and after death.*—All the contractions of which I have spoken, appear to me to be produced by an excitation made upon the contractile tissues by a substance existing in the blood, and the quantity of which becomes much increased during asphyxia. The relations between these contractions and asphyxia are evident. A great many of them do not exist unless asphyxia exists, and their energy is always in proportion to the degree of asphyxia.

I believe that the substance in the blood which has that power is the carbonic acid. In admitting this opinion we can easily explain all the phenomena.

There are certain contractions which take place in muscles of animal life, after death, and which have quite another cause. In cold seasons, it is not uncommon to find, in limbs of frogs, when we separate them from the body, apparently spontaneous

contractions, lasting sometimes for half an hour or even more ; but these contractions have begun when we have cut the nerves, and they continue on account of galvanic discharges which accompany them. The fact that they begin after the excitation of a nerve, is sufficient to show that they are not like the other contractions, of which I have previously spoken.

Some of the facts I have related may appear to be distinct from the others. So, for instance, contraction taking place in paralysed muscles of the face or of the limbs in living animals, might be considered as quite different from the contractions existing after death. I think that they originate from the same cause, viz., an excitation by carbonic acid. A muscle may be moved or not be moved by an excitant. If the degree of irritability is greater in one case than in another, we may see the same amount of excitation produce a movement in the first case, and not in the second. If the amount of excitation increases, then we may see both muscles moved, but the most irritable more than the other. This is sufficient to explain why the paralysed muscles may be moved by the carbonic acid existing in the blood during life, while the muscles that are not paralysed are not moved. I have found that the degree of irritability increases, during a certain time after paralysis, in the muscles of animal life. Their irritability being augmented, they are excited sufficiently to contract, by a quantity of carbonic acid which is not sufficient to act on the other muscles.

The following facts and reasonings will, I believe, prove that, at least in the bowels, black blood, very likely by its carbonic acid, may excite powerful movements. It is known that when we open the abdomen of an animal immediately, or a short time, after death, we generally see considerable movements in the bowels. These movements have been attributed to the action of air, or to that of cold, on the bowels. This is not a right view. A sudden exposure to a cold atmosphere may, possibly, produce contractions in the bowels ; but certainly cold is not the ordinary cause of these movements. At first, they may exist in a warm atmosphere, and then they appear to be more rapid than in a cold atmosphere. Besides, the bowels may be exposed to a cold atmosphere, and remain motionless, although they have their entire irritability. As to atmospheric air, it is not able to excite a

movement in the bowels. If we open the abdomen of a living animal, in avoiding to excite mechanically the bowels, and in allowing the animal to breathe freely, we may for a long time see no other movement in the bowels, except, sometimes, slight regular and natural peristaltic motions, depending on digestion, and limited to some small parts of the bowels. The animal must be kept on his back, and we must avoid touching the bowels, because a slight contact is sufficient to produce movement. Now, if we prevent the animal from breathing, we see, after ten, fifteen, or twenty seconds, very violent, sudden, and rapid contractions taking place in all parts of the intestine, from the stomach to the rectum, but much more in the small intestine than elsewhere. These movements are quite different from the digestive peristaltic movements. If the animal is allowed to breathe again, and freely, the movements diminish gradually, and disappear almost entirely after a few minutes. Then, if we prevent it again to breathe, we see the movements produced again. This experiment may be repeated many times, with the same result, on the same animal.

We are certainly entitled to conclude that there is an exciting cause of contractions, developed during asphyxia, and that it is neither the cold nor the atmospheric air which produces in all cases the movements of the bowels after the opening of the abdomen. We may draw the same conclusions from another experiment. If we put a tie around the trachea of a living animal, immediately after expiration, we may see and feel violent movements taking place in the bowels, although the abdomen is not opened. It is in consequence of such movements that there is an expulsion of faecal matters, after death, in man. The urine may be also expelled in these cases, in man and in animals, and this expulsion takes place because the bladder contracts, and not, as it is generally admitted, because the *sphincter vesicae* becomes relaxed.

Some physiologists have considered the cessation of the circulation of the blood in the bowels as the cause of their movements, after death, and they relate as a proof the fact that the section of the arteries going to a part of the intestines, is followed by contractions in the parts thus deprived of circulation. But nothing is explained by saying that the cause of the contraction is

in the absence of circulation. As contractions require an excitation to be produced, what is the exciting cause when the blood does not circulate? After the section of an artery there is blood remaining in the capillaries, and that blood, after a short time, becomes very rich in carbonic acid, and then, if my theory is right, contractions ought to be produced. The result of the section of one of the arteries is, therefore, in accordance with my theory.

Other facts may be adduced proving the influence of black blood and carbonic acid on the bowels.

If black blood is injected in the arteries of the small intestine when its irritability is much diminished, movements are almost immediately produced, but they do not last long. On the contrary, if red blood is injected, movements do not appear immediately, and they are very strong and last long. This action of red blood may be easily understood: it increases the irritability of the muscular layer of the bowels, as it does for that of the muscles of animal life, and when it has been changed into black blood, it excites the muscular tissue and produces contraction. The strength and the long duration of the contraction in this case depend on the increase of irritability. When, as in the above experiment, black blood (containing a great quantity of carbonic acid, on account of the constant formation of that gas in blood deprived of the contact of atmospheric air) is injected, the irritability is not sensibly increased, but the excitation is considerable and there is an almost immediate effect.

If air is injected in the arteries of the bowels, soon after the death of the animal, a part of the blood it contains is expelled, and we find that the movements do not last as long as if the blood had not been removed.

When an animal is killed by hæmorrhage, the intestine, as well as all the other organs, contains more blood than usual, and then its movements are not so strong, and last less than they do generally.

When in a recently asphyxiated animal the arteries and veins of a part of the bowels are divided, the movements of that part become less strong and last less than those of the other parts of the intestine.

When the bowels of a recently asphyxiated animal are put under a receiver containing carbonic acid, their movements are

very much increased, but they do not last so long as when they are in the atmosphere.

When they are put under a receiver containing hydrogen, their movements are very quickly diminished in strength, and they last still less than when exposed to carbonic acid.

When they are put in oxygen, their movements diminish a little at first and soon after become stronger, and they last much longer than usual.

As a general conclusion about the apparently spontaneous contractions which I have described as taking place in paralyzed muscles during life or after death, I will say that it seems that black blood by its carbonic acid is the cause of these contractions. When the nervous centres are still united with the contractile tissues, we see, during agony or after death, stronger movements generally than when they are separated. The action of black blood on the nervous centres may be very great. I have found that the spinal cord, when separated from the encephalon, may be strongly excited by black blood. If an animal is asphyxiated after a transversal and complete division of its spinal marrow in the dorsal region, we see convulsions taking place in the posterior limbs, and they are nearly as strong as when the nervous centers have not been injured. The excitation on the spinal marrow is considerable enough to produce an erection of the penis.*

XXXIV.—ON THE CAUSE OF THE BEATINGS OF THE HEART.

The cause of the rhythmical movements of the heart has been heretofore unknown. I believe I have discovered it.

Before exposing my theory and the facts upon which it is grounded, I will show that the theories put forward until now are not correct.

There are three theories only which are worthy of examina-

* Almost all, if not all, the secretions of the body are increased during asphyxia: bile, (as shown by Professor Bouisson,) saliva, tears, gastric, pancreatic and intestinal juices, and also liver-sugar, etc., are produced in greater quantity than usual. I believe that this increase results from the excitation of the nervous system, and, in some measure, perhaps, from direct action of black blood on the capillaries of the glands. The urinary secretion may also be changed in asphyxia, and not only then the urine may contain sugar, as Alvaro Reynoso has found, but also albumen.

tion: 1st, that of Haller; 2d, that of Carpenter; 3d, that of Budge, Schiff, and others.

Haller has been very near the truth in admitting that the beatings of the heart were excited by the blood. His error has been an *error loci*. He thought that the blood acted in the cavities of the heart. It is not so; and it is known that the heart may continue to beat after all the blood has been drawn out of its cavities.

The doctrine of Carpenter* is a very simple and remarkable one. He believes that the muscular fibres may act without having been excited. A muscle, says he, may be compared to the electric jar, and become so *charged* with *motility*, (or motor force,) as to execute spontaneous contractions; and elsewhere, "It is not very difficult to conceive that the ordinary rhythmical movements of the heart may be due to a simple excess of this motility, which is continually being supplied by the nutritive operations, and is as constantly discharging itself in contractile action." Carpenter believes that the reason for which the heart presents spontaneous contractions while the other muscles do not, (at least ordinarily,) is, that there is a higher degree of motility in the heart. He considers as very important the facts I have discovered, that many other muscles besides the heart may present rhythmical movements. He thinks that these facts show there is a tendency to rhythmical movements in the muscles themselves, altogether independent of the excitement to action which they receive through the nervous system.

The best ground for the hypothesis of Carpenter is that, according to him, the heart continues to beat, although it is not exposed to any excitation in certain circumstances. He says: "When every source of excitement is excluded, we cannot but perceive that these actions take place with a *spontaneity* which can scarcely be accounted for in any other way than by considering them as expressions of the vital activity of the component cells of these forms of muscular tissue, which manifests itself in this mode, when the developmental life of the cell has attained its maturity. And this view is strikingly confirmed by what we know of the origin and termination of these movements.

* See his *Principles of Human Physiology*, American edition, by F. G. Smith. Philadelphia, 1853. pp. 130 to 132, 319, 325, and 471-72.

For the action of the heart commences when, as yet, its contractile parietes consist but of an assemblage of ordinary-looking cells, no proper muscular tissue being evolved, and no nervous system being yet developed, from which the stimulus to the movement can proceed; and *it is impossible to assign any other cause for the movement under such circumstances*, than the attributes inherent in the tissues which perform it."

The first thing to be said against the view of Carpenter is, that his hypothesis is not necessary; because *it is possible to assign another cause for the movement of the heart under the circumstances* he speaks of. This will be proved hereafter.

The doctrine of Carpenter implies, that the degree of irritability (motility, motor force, contractility,—never mind the name) is greater in the heart than in the other muscles which have no spontaneous action. This is not the case. The degree of irritability, as judged by its duration after death, is generally greater in the muscle of animal life, than in the heart. The accepted sentence of Haller, *Cor ultimum moriens*, generally, is not true.

If Carpenter was right, we should see, during life, the apparently spontaneous contractions which take place in all the contractile tissues after death; because their irritability is at a higher degree in the first, than in the second case. Besides, we should not see oxygen, or red blood, diminish the frequency of the beatings of the heart; and black blood, or carbonic acid, increase that frequency.

An experiment, consisting in the research of the influence of *vacuo* on the heart, has been made by Tiedemann and by Dr. S. W. Mitchell, and Dr. T. H. Bache, (see *Dunghlison's Physiol.*, vol. ii. p. 150.) It seems to me that the result of this experiment is in complete opposition to the doctrine of Carpenter. These experimenters have found that the beatings of a heart were speedily brought to a stand by the exhaustion of the air, and that they were renewed when it was re-admitted. If the view of the eminent British physiologist was right, we ought to see ~~the~~ heart continue to beat in *vacuo* about the same length of time it would in hydrogen or nitrogen, because its irritability ~~not~~ be suddenly diminished enough by the exhaustion of the
In these gases the heart of a mammal may beat for five or

ten minutes or more, and the right auricle may beat for hours ; and the heart of a frog may beat for one day. It is much more to account for the stopping of the heart's action in admitting that the excitant of that action is removed during the exhaustion of the air. John Reid had found that the heart of a frog had continued to beat *in vacuo*, but how long he does not say.*

I will relate hereafter many experiments of mine which are in opposition to the theory of Carpenter.

It is one of the most important questions in physiology, whether the nervous centres, the nerves, and the contractile tissues are able to act without stimulation. This question has not been yet entirely treated by any physiologist. I propose publishing a special paper on the subject. I will merely say here that there may be apparently spontaneous actions in the spinal cord, as well as in the muscles. For instance, very frequently, in a frog, after the removal of the brain and the medulla oblongata, we may see strong movements apparently spontaneous, but when we know that the slightest excitation of the skin, or of any other very sensitive part, may excite the spinal cord, and produce a reflex action, we are authorised to consider all the movements taking place as reflex actions. An excitation may have come to the spinal marrow from the bladder, from the bowels, from the lungs, (in which worms are almost always found in the cold seasons, i. e. at the time these phenomena are generally observed,) etc.

As to the spontaneity of action in muscles, I have tried to prove in a preceding article that it is a mere and false appearance.† I will prove hereafter that the cause of the apparently

* Art. Heart, in Todd's Cyclop., vol. ii. p. 611. J. Reid says in the same page, "We ought to be more cautious in admitting the existence of this innate moving power, since it is in opposition to a well known law in the animal economy, that though the various tissues of an organised body are endowed with certain vital properties, yet the application of certain external and internal stimuli is necessary to produce their manifestations of activity. In fact it is from the action and reaction of these tissues and excitants upon each other that the phenomena of life result."

† Carpenter says that the action of the uterus, as it shows itself, "not merely in the final parturient effort, but in local contractions that frequently occur during the latter months of gestation, (simulating the movements of the foetus,) are more satisfactorily accounted for by considering them as a discharge of accumulated power, than in any other mode." I will try to

spontaneous contractions of the heart, is the same as that of the like contractions in other contractile tissues.

The physiologists who maintain that the beatings of the heart depend on the nervous system, appear to me to be greatly mistaken. They make a confusion between two things, greatly distinct, one from the other: they conclude from the fact that the nervous system is able to act on the heart, that its influence is necessary. It is the same kind of mistake which is so frequently made as to the influence of the nervous system on nutrition, on secretions, and on animal heat; because that system is able to act upon these functions, it is concluded that its influence is necessary.

The first argument to be adduced against the writers who admit, as necessary, the influence of the nervous system on the heart, is, that they change only the ground of the difficulty in doing so. Instead of having to explain why the heart acts rhyth-

prove elsewhere that for the uterus, as well as for any other contractile tissue, there is no spontaneous action. The uterus, in pregnancy, becomes more and more irritable every day, and when its irritability has arrived at a very high degree, then the slight excitation produced by the carbonic acid normally contained in the blood is sufficient to put it in action. When the contractions have begun, they are very much increased by a reflex action. Every contraction is accompanied by a galvanic discharge on the nerves in the neighborhood of the muscular fibres which contract, and the sensitive nerves being thus excited, it results, 1st, that a pain is felt, the degree of which is in proportion to the degree of any contraction, and therefore with the degree of galvanic discharge;* 2d, that the spinal marrow is excited, and produces reflex movements in the uterus. Now, the more these reflex contractions are energetic, the more they are induced to take place again, on account of the galvanic discharge which accompanies them. So that there would be a constant increase in the intensity of the contractions if there were not four limits to them. 1st, there is no galvanic discharge when the muscular fibres *are contracted*; it is only at the time they *are contracting* that this discharge takes place; 2d, the primitive cause of contraction, the excitation of the muscular tissue, by carbonic acid, diminishes much during the contraction, because the caliber of the small blood-vessels is much diminished, and the blood expelled from them; 3d, every contraction of the uterus diminishes the degree of its irritability; 4th, the reflex power of the spinal cord becomes exhausted, or at least diminished.

* See, on this subject, my paper in the *Comptes rendus de la Société de Bologne*, en. 1850, t. ii. p. 172.

mically, they have to explain why the nervous system acts rhythmically on the heart. Not only they have not explained this rhythmic action of the nervous system, but, as far as I know, they appear not to have been aware that this was to be explained.

The second reason I will mention, is the fact, so well established by my friend Professor Lebert, that, in embryos, the heart beats when it is merely composed of cells, and when the nervous system has not yet appeared.

A third reason is, that, either in monsters, or in animals operated on by physiologists, there has been a long persistence of the beatings of the heart when a part of the cerebro-spinal centre did not exist, or had been removed. Any part may be in that case, even the medulla oblongata, as I have discovered. (See Art. xvi. p. 40.)

In opposition to the idea that the beatings of the heart depend on the microscopical ganglia existing in that organ, I will say, that, besides the fact that the heart beats in embryos before the nervous system exists, and besides the improbability that such a small amount of nervous matter should have so great a power, there are two good reasons against this strange theory:—1. There have been found no ganglia, large or microscopical, in the auricles, in the sinuses of the pulmonary veins, or in those veins. All these parts, nevertheless, may continue to beat a long while, (even for hours,) after they have been separated from the ventricles where are the microscopic ganglia. 2. Rhythmical movements may exist in a great many other muscular parts of the body, where there is no microscopical ganglion, and where these parts have ceased to be under the influence of the nervous centres.

The three theories which I have examined being unable to explain the beatings of the heart, I will now expose my theory, and discuss the three following questions:—1. What is the excitant which puts the heart in action? 2. Does that excitant act rhythmically? 3. Does that excitant act together directly on the muscular fibres of the heart, and on the nervous system; or does it act only on the muscular fibres?

After having solved these three questions, I will examine the objections which might be made to the doctrine I propose.

1. *What is the excitant which puts the heart in action?*

I believe that the beatings of the heart are excited by a prin-

ciple existing in the blood, and that carbonic acid is that principle. This view is grounded on the following facts:

a. When we prevent a warm-blooded animal from breathing, the beatings of the heart become more frequent than before, for about one or two minutes. It is not on account of the emotion alone that it is so, because the same effect is produced when we asphyxiate suddenly an animal which has entirely lost his power of having emotions, in consequence of the action of chloroform.

b. Many times I have found, on myself and on one of my friends, that the beatings of the heart are rendered more active during asphyxia. We hold our breath for about three quarters of a minute, and during the last fifteen seconds the heart beats from two to four (in one case five) minutes more than when the respiration was free. We have made the experiment in the sitting position, avoiding any movement of the body in all the cases.

c. John Reid has discovered that when any hemadynamometer is put in the femoral artery of a dog, the mercury rises in the instrument if the animal is asphyxiated, and about one minute after the respiration has been stopped. The same result has been obtained in twenty experiments. It seems to me that this fact proves that the contractions of the heart become more energetic during asphyxia. John Reid attributes the result he has obtained to some difficulty that black blood seems to have in passing through the capillaries of the different parts of the body. I do not deny that there is such a difficulty; but I think that the great reason of the ascension of mercury in the hemadynamometer is, the increase in the force of the heart. A simple experiment proves that I am right. I adapt the hemadynamometer to the aorta in the abdominal cavity, and then I open quickly the chest, and I put a ligature to the brachial and carotid arteries. About three quarters of a minute after opening the chest, and about half a minute after the ligature has been put on the arteries of the head and arms, the mercury rises notably in the instrument; sometimes the elevation is as considerable as two inches. It results from this experiment, that the heart beats more strongly in asphyxia about one minute after its beginning.

d. Woodall, a most intelligent and accurate observer, says Dr. Martin Paine, (see *Med. and Physiol. Comment.*, t. ii. p. 49.)

states, that the best remedy for syncope is to obstruct respiration entirely by momentarily confining the nose and mouth. If this be true, it is in perfect accordance with my view, that, during asphyxia, the normal cause of the beating of the heart increases in the blood.

e. If a frog is put under a receiver containing pure oxygen, at a temperature of 40 or 50° Fahr. (4, 5, or 10 Cent.) after its heart has been laid bare and its central nervous system destroyed, we see the heart beat for a very long time, (one, two, or three days.) On the contrary, if, at the same temperature, another frog, deprived also of the central nervous system, is put in carbonic acid gas, the heart beats very quickly at first, but it soon ceases to beat, (in one or two hours only, sometimes, and for the most about half a day.)

f. All the causes which increase the formation of carbonic acid gas in the body, increases the frequency of beatings of the heart.

g. If we inject the serum of blood into the arteries of the heart, so as to expel as completely as possible the blood contained in the capillaries of this organ, and if then we remove the blood from the cavities of the heart, we find that its beatings are, at once, almost entirely suspended, and that they are completely stopped in a very short time, (from one to eight minutes.) The muscular irritability is not destroyed in this organ; it does not beat because its excitant has been removed.

h. I have found that when the heart of a young animal is put in hydrogen, its beatings hardly change at first, but they stop in a very short time. When it is put in carbonic acid gas, its beatings are, at first, increased in frequency and strength; but they very soon are stopped. When it is put in oxygen, its beatings are slowly increased in frequency and strength, and they last very long.

i. On newly-born cats and dogs, before the occlusion of the *ductus arteriosus*, I open the chest and put a ligature on the arteries going to the head and fore-limbs, and on the aorta immediately after the origin of the *ductus arteriosus*. Then the blood, expelled from the right ventricle, is sent to the lungs, from which it comes to the left auricle, and afterwards to the left ventricle. From there it is sent into the only part of the aorta remaining accessible, and thence it goes into the cardiac arteries, and into the

pulmonary artery, through the ductus arteriosus, (a direction which is the reverse of the normal direction in that duct.) By the cardiac veins the blood arrives again in the right side of the heart. The circulation from the heart to the lungs, and *vice versa*, continues very well. I have found, that if hydrogen is insufflated into the lungs, the beatings of the heart are not much changed at first, but they go on diminishing, and they disappear in a short time. When an injection is made with carbonic acid, the beatings of the heart are quickly increased in frequency and strength; but they are stopped after a short time. When oxygen is insufflated, the beatings of the heart become slowly more frequent, and they remain quick and strong for a long time. (I have once, by such insufflation of oxygen, maintained beating for eleven hours in the heart of a young cat.)

I believe that these facts prove that black blood, by its carbonic acid, is an excitant of the beatings of the heart. If, now, we adduce to these facts all those I have related in a preceding article, on the apparently spontaneous contractions in all the contractile tissues of the body, we shall have a very considerable number of facts, proving that, during asphyxia, there is an accumulation in the blood of the principle which causes these contractions. I believe that it is almost impossible to deny that this principle is the carbonic acid gas.

Before trying to show that what takes place in asphyxia in the heart is only an exaggeration of what normally exists in that organ, I will treat the two remaining of the three questions I have announced I would endeavor to solve, as regards the excitant of the heart's action.

2. *Why does that excitant act rhythmically?*

I believe it is easy to explain why the agent of excitation of the heart* produces rhythmical contractions. I will suppose, first, that the action is permanent. A part of the heart, ventricles, or auricles, being dilated, receives an excitation in all its fibres simultaneously, and a contraction is produced. But, according to the well-known law of Schwann, the exciting cause which is able to give the impulse when the muscular fibres are long, is not able

* What I will say here for the heart, might be said for all the contractile tissues, presenting apparently spontaneous rhythmical contractions, as the intestine, for instance.

to maintain the contraction when the fibres have been shortened. Then, on account of this insufficiency of power of the cause of the contraction, a dilatation ensues. We may present the fact in other words, and say that the resistance to the contraction originating from the displacement of the constitutive matter of the contractile tissues, increases in proportion to the shortening of the fibres; and that after the fibres have contracted under the impulse of the exciting cause, although this cause continues to act, a dilatation is produced by the force belonging to that resistance, which is nothing but elasticity. If the cause of the contraction of the heart was a considerable one, then we should see a permanent contraction; and it is so when we apply galvanism—the elasticity, then, is not powerful enough to produce dilatation. On the contrary, with a weak exciting cause, like carbonic acid, the result ought to be different. When that cause has more power, as in asphyxia, the shortening of the fibres takes place quicker, and is more considerable; and even then it is not sufficient to maintain contraction, the tendency to dilatation being also increased.

I ought to say, that the excitant cause of the contractions is not always at the same degree of power. The small blood-vessels and the capillaries being compressed during the muscular contractions, there is a diminution of excitation during that time. This should be sufficient to explain the alternate contractions and dilatations. But such a diminution in the caliber ought to be very little, if even it exists in certain organs, (the heart when composed of cells, for instance.)

I come now to the third question about the excitant of the heart—

3. *Does that excitant act together on the muscular fibres and on the nerves of the heart, or does it act only on the muscular fibres?*

I believe it ought to act also on the nerves; but I cannot prove it otherwise than by saying, that all the agents of excitation that we know to act on the muscular fibres, are able to act on the nerves.

There are many things to be said besides the above facts and reasoning, to prove the truth of the doctrine I propose. I will expose some of them.

The following question might be made :

How is it that the heart is the only muscle containing striated fibres, which presents normally rhythmical movements ?

The answer to this question appears to be very simple. The intensity of the stimuli, the degree of irritability, and the resistance which a muscle has to overcome when it contracts, are three elements which we ought not to lose sight of when we examine the difference of contractions between two muscles. Suppose the heart possessing the same degree of irritability as another muscle : if the stimulus is the same, and the resistance the same also, for the heart and for the other muscle, there will be the same effects. But if the stimulus is more considerable in the heart than in the other muscle, and if the resistance to be overcome is less for the heart, then with the same degree of irritability in both parts, and even with less irritability in the heart than in the other muscle, we will see a movement in the heart, and not in that other muscle. Now a simple examination of the vessels of the heart, proves that they contain more blood, and consequently more stimulus, than the other striated muscles. Besides, as the heart is not inserted into heavy bones to be moved, it has less resistance to overcome when it has not to circulate the blood, as after death, or when it is out of the chest, than the muscles of animal life. Some muscles in the face and the diaphragm, being almost without an external resistance, when their contractions do not go so far, it results that they are moved much more easily after death, than the muscles of the limbs. In consequence of these views, I believe that, although there is in the blood-vessels of all the muscles of the body a principle which is an exciting cause of contractions, there are no contractions produced, because the quantity of that principle is not sufficient, or because the resistance to contractions in many muscles is greater than in the heart.

I must, in conclusion, say, that I do not advance my theory of the rhythmical movements as perfectly proved. I believe it is true, and that there are a great many facts which appear positively to prove it. What I can assert is, that it is by far much more in harmony with all the known facts, than the other theories.

Mortality of Philadelphia, for April, May and June, 1853, arranged from the record kept at the Health Office. By WILSON JEWELL, M. D.

The deaths from all causes reported during the quarter ending July. 2d, embracing a period of 91 days, amount to 2235. Compared with those for the same period of last year, there has been a falling off of 15 per cent. in the aggregate.

Deducting the "Still Born," amounting to 150, the deaths from "External Causes," 82, "Old Age," 29, and "Unknown," 46, amounting in all to 307, and there will remain 1928 deaths from known diseases.

The number of deaths reported under one year of age, exclusive of still-born children, amounts to 482, or nearly one-fourth; and those under five years amount to 915, or about one half of the whole number of deaths from known diseases.

The deaths among males were 1157, females 1078—being an excess of 79 of the former over those of the latter.

Estimating the population at about 415,000, the aggregate of deaths in the quarter will give 1 in every 181 $\frac{1}{4}$ of the population; which is equivalent to 25 deaths per day, during the quarter.

Eleven hundred and thirty-two, or about fifty per cent. of the whole number of deaths recorded, were under 20 years of age.

CLASS 1st.—Among this class, the "Endemic or Zymotic," there is a decrease of 162, or about 25 per cent. from those for the like period in 1852. The difference is accounted for by the falling off in small-pox and measles. Last year the mortality from these diseases was wide-spread. The present year, thus far, they are comparatively rare.

CLASS 2d.—Of the diseases of "Uncertain Seat," there were 297 deaths. Of these, 212 are charged to Debility, Marasmus and Dropsy, of which number 103 were under one year of age.

CLASS 3d.—The deaths under this head, "Nervous System," amount to 393. 142, or nearly one-third, were from Convulsions, 47 from Dropsy of the Brain, and 40 from Inflammation of the Brain. Of these, 114 were under one year of age.

CLASS 4th.—The diseases of the “Organs of Respiration,” amounting to 515, constitute nearly one-fourth of the whole number of deaths for the quarter.

Consumption of the Lungs make up a large proportion of this class—namely, 312; while Inflammation of the Lungs furnish 103. The deaths from Consumption of the Lungs are less 12 than for the same period in 1852. 92 of the deaths took place between the ages of 20 and 30. The deaths among females exceed those of males by 11 per cent.

CLASS 8th.—The diseases of the “Organs of Generation” furnish only 22 deaths. Five of these are charged to Child-bed and four to Puerperal Fever. In 1852, in the same period, there were 24 deaths from diseases of the Organs of Generation, eight of which were from Puerperal Fever.

CLASS 12th.—From “External Causes” there were 82 deaths. 56 of these occurred in males and 26 among females. The exposed situation of the male sex over that of females, and the danger of their out-door employments, may add to the increase of deaths among males from external causes.

Table No. 3, furnishes the exact number of deaths at fifteen distinct periods of life. By this it will be seen that infancy furnishes a large proportion of the deaths; that between birth and the fifth year, 915 children have perished during the past three months—a number almost equal to one-half the whole number at every age of life. The healthiest period of childhood lies between the ages of 10 and 15, and this corresponds with other statistics.

The deaths that took place at the Alms-House during the quarter, were 174, and those which occurred among people of color were 190.

TABLE No. I.
Deaths for the Second Quarter of 1853, classified.

	April.	May.	June.	MALE.			FEMALE.			Total.
				A.	M.	J.	A.	M.	J.	
1. <i>Endemic and Contagious Diseases.</i>										
Zymotic or Epidemic	135	108	218	59	49	112	76	59	106	461
2. <i>Uncertain or general seat. Sporadic diseases</i>	94	76	127	55	36	63	39	40	64	297
3. Nervous System	140	104	149	77	52	89	63	52	60	393
4. Organs of Respiration	203	152	160	99	83	78	104	69	82	515
5. " Circulation	24	17	23	12	6	8	12	11	15	64
6. Digestive Organs	54	41	56	31	16	33	23	25	23	151
7. Urinary Organs	1	2	6	1	2	5		1		9
8. Organs of Generation	6	11	5				6	11	5	22
9. " Locomotion	6	5	1	1	2		5	3	1	12
10. Integumentary System	1	2	1	1	1	1		1		4
11. Old Age	14	6	9	6	3	6	8	3	3	29
12. External Causes	19	26	37	11	17	28	8	9	9	82
Still Born	50	33	67	31	21	36	19	12	31	150
Unknown	9	14	23	6	5	15	3	9	8	46
	756	597	882	390	293	474	366	304	408	2235

TABLE No. II.

1. *Endemic and Contagious Diseases.—Zymotic or Epidemic.*

	Male.	Female.	Under 1 yr.		2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
			1 to 2.	2 to 5.														
Cholera Infantum	28	35	53	8	2													63
" Morbus	2	2	2						1		1							4
Croup	25	29	7	8	30	9												54
Diarrhœa	17	12	14	3	1				4	2	1		1	3				29
Dysentery	31	31	18	12	15	1		1	2	2	2	5	1	2	1			62
Erysipelas	14	12	10	1	2		1	1	2	2	1	3	2		1			26
Fever	2	4	1					1	1	1	1	1	1					6
" Bilious		4		1	1			1			1							4
" Continued		3							2			1						3
" Intermittent		3			1													3
" Remittent	5	7		3				2	2	3		1		1				12
" Scarlet	37	38	4	13	34	19	4	1										75
" Typhus	26	23			1	1	4	12	12	6	8	2	2	1				49
" Typhoid	19	23			1	5	4	3	6	5	7	7	1	1	1	1		42
Hooping Cough	3	4	2	5														7
Influenza		1		1														1
Measles	3	2	1	1	3													5
Small Pox	7	8	7	1	2	2		1	1	1								15
Syphilis	1									1								1
	220	241	119	57	92	37	10	14	29	33	19	24	12	5	8	2		461

2. Uncertain or General Seat.—Sporadic Diseases.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abscess . . .	4			1				1	1	1								4
“ Neck . . .		1		1														1
“ Psoas . . .	1	1										1	1					2
Angina . . .			2			2												4
Cancer . . .	2	3					1					4						5
“ Breast . . .		1										1						1
Cachexia . . .	1	1			1									1				2
Cyanosis . . .	2	3	5															5
Debility . . .	45	50	40	3	2		1	1	3	9	3	7	11	9	6			95
Disease of Throat . . .	1										1							1
Dropsy . . .	15	11	4		5	2		1	3	1	1	1	4	2	1	1		26
Fungous Glands of Neck . . .	1												1					1
Gangrene . . .		2		1	1													2
Glandular Swelling . . .		1	1															1
Hectic Fever . . .	2								1	1								2
Hemorrhage . . .	3	5	4		2				1				1					8
Inanition . . .	5	3	5		1						1	1						8
Inflammation . . .	3				2						1							3
“ Throat . . .		1			1													1
“ Tonsils . . .	1			1														1
Malformation . . .	1	3	3	1														4
Marasmus . . .	44	47	59	11	14		2	1		1	3							91
Melæna . . .	1	1	1								1							2
Scirrhus . . .	1											1						1
Scrofula . . .	9	3	6	1	1	1		1		1			1					12
Spina Bifida . . .	1	1	2															2
Tabes Mesenterica . . .	7	1	6	1	1													8
Ulceration . . .	2									1		1						2
“ Throat . . .	2			1						1								2
	154	143	138	22	31	5	4	5	9	16	11	17	20	11	7	1		297

3. *Of the Nervous System.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abscess of Brain . . .	1					1												1
Apoplexy . . .	12	11			1			1	1	1	5	4	6	4				23
Cerebral Fever . . .		1			1													1
Compression of Brain . . .	1		1															1
Concussion . . .	2	1		2						1								3
Congestion " . . .	19	14	11	4	8		1		4	2	1	1		1				33
Convulsions . . .	69	73	80	19	25	3	4	1	1	5	2	1	1					142
" Puerperal . . .		1								1								1
Coup de Soleil . . .	20	4		1		1		3	7	5	5	1			1			24
Cramp . . .	1		1															1
Dropsy of Brain . . .	23	24	23	12	8	3			1			1						47
Effusion " . . .	6	8	4	1	3	1		1				1	2					14
Epilepsy . . .	3	3	1					2	3									6
Neuralgia . . .	1	1							1				1					2
Palsy . . .	6	7							1		2	3	2		5			13
" of Brain . . .	1				1													1
Mania a potu . . .	19	1						1	4	4	6	3	2					20
Softening of Brain . . .	1	1									1				1			2
Tetanus . . .	3		1						1		1							3
Trismus . . .	1	1	1	1														2
Tumors of Brain . . .	1							1										1
Disease " . . .	6	6	2	1	2			1	1	2	3							12
Inflammation " . . .	22	18	11	9	11	4	2		1	1		1						40
	218	175	136	50	60	13	7	11	26	22	26	16	14	5	7			393

4. *Organs of Respiration.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abscess of Lungs . . .	1	3			1		1					2						4
" Thorax . . .		1	1															1
Asthma . . .		3								1			2					3
" Thymic . . .		1																1
Consumption of Lungs . . .	147	165	3	4	3	5	9	30	92	74	50	20	16	6				312
Congestion " . . .	4	5	3	3					1				2					9
Disease of Lungs . . .	8	1	3	1		1			3		1							9
Dropsy of Chest . . .	4	6		1	2		2	1		1			1	2				10
Effusion " . . .	2	1			1	2												3
Empyema . . .	1								1									1
Disease of Chest . . .	1					1												1
Effusion of Lungs . . .		1												1				1
Hemorrhage of Lungs . . .		4	1							1	1		1					4
Inflammation " . . .	61	42	16	9	20	5	1	2	14	11	5	7	5	7	1			103
" Larynx . . .	5	1	2	1				1										6
" Bronchiæ . . .	19	16	13	4	5				2	1	1	3	3	3				35
" Pleura . . .	2	2							3			1						4
" Chest . . .	2	1		2	1													3
Palsy of Lungs . . .	1				1													1
Ulceration of Larynx . . .	1	1		1					1									2
Tuberculosis . . .	1	1					1					1						2
	260	255	42	25	35	14	15	34	118	90	58	34	30	19	1			515

5. Organs of Circulation.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Angina Pectoris . . .		1										1						1
Anæmia	1	1			1						1							2
Dropsy of Heart . . .	3	6	2		1	1	1			1	1		1					9
Disease "	17	23	4	4	3	1	2	1	2	6	6	5	2	2	2			40
Enlargem't "	1	5		1				1	1		1	1		1				6
Inflammation " . . .	4	1						1	1		2	1						5
Ossification "		1												1				1
	26	38	6	5	5	2	3	3	4	7	11	8	3	4	2	1		64

6. Digestive Organs.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abscess of Liver . . .	1	1							1	1								2
Abdominal Dropsy . .	3	3							2	1		1	1	1				6
Cancer of Stomach . .	1										1							1
Carcinoma Oris . . .	3	2		1	2	1	1											5
Cirrhosis	1	1											2					2
Consumption of Bowels	1	1				1			1									2
Disease of Bowels . .	1	1			1							1						2
" Liver	2	1	1							1	1							3
" Stomach		2							1	1								2
Dyspepsia	1			1														1
Enlargement of Liver .	1								1									1
Gastric Fever	1				1													1
Hernia, Strangulated .	1		1															1
Intussusception . . .	1					1												1
Inflammation of Bowels	2	2	2			2												4
" Liver	7	3			2		1	1	2	2	1	1						10
" Stom'h & Bow'ls	32	29	12	12	10	1	3	9	3	5	2	1	1	1	1	1		61
" Peritoneum . . .	10	13	1		2	2	2	6	5	1	3	1						23
Jaundice	5	2	3		1	1			1			1						7
Obstruction of Bowels .	1	1								1								2
Perforation of Stomach	1									1								1
Scirrhus of Pancreas .		1									1							1
" of Stomach . . .	2								1	1								2
" of Bowels		1									1							1
Teething	2	3	3	2														5
Tumour of Abdomen . .	1													1				1
Worms		1				1												1
Ulceration of Bowels .		2							1			1						2
	81	70	23	17	19	7	4	6	22	18	11	10	9	3	1	1		151

7. The Urinary Organs.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Albuminaria . . .	1								1									1
Disease of Bladder . . .	1																	1
Inflam. of Bladder . . .	1	1							1				1	1				2
“ of Kidneys . . .	1					1												1
Ischuria . . .	1								1									1
Rupture of Urethra . . .	1									1								1
Stricture . . .	1												1					1
Urinary Calculi . . .	1												1					1
	8	1			1				3	1			3	1				9

8. Organs of Generation.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Cancer of Uterus . . .		3								1	1		1					3
Child Bed . . .		5							1	4								5
Disease of Uterus! . . .		1											1					1
Fever Puerperal . . .		4							3	1								4
Hemorrhage from Uterus . . .		3							2	1								3
Inflammation of “ . . .		3							2	1								3
Puerperal Mania . . .		2							2		1							2
Scirrhus of Uterus . . .		1											1					1
	32								8	9	2		3					22

9. Organs of Locomotion.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Caries . . .		2											1					2
Caries of Spine . . .	1	1					1	1										2
Congestion Spinal Marrow . . .		1											1					1
Disease of Hip . . .		1				1												1
“ of Spine . . .	2	1		1		1	1											3
Inflam. of Knee Joint . . .		1											1					1
“ of Spine . . .		1				1												1
Spinal Irritation . . .		1				1												1
	3	9		1		4	2	1					3		1			12

10. *The Integumentary System.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Carbuncle		1																1
Fistula	1								1									1
Purpura Hemorrhagica	2		1						1									2
	3	1	1						2	1								4

11. *Old Age.*

Old Age	15	14											3	11	14	1		29
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12. *From External Causes.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Asphyxia	2	2	4															4
Burns and Scalds	3	7	4		1				2	3								10
Casualties	19	10	4	2	2	2	2	2	3	3	8	1	1	1				29
Drowned	20	1		1	2	2	2	4	2	4	1	2	1					21
Fracture	1							1										1
“ of Spine	1											1						1
Intemperance	5	3							3	2	1	1	1					8
Poisoning		2	1				1											2
Suffocation	1								1									1
Suicide	4	1							1	1	2	1						5
	56	26	9	4	3	5	4	5	14	12	15	5	4	2				82

Unknown	26	20	8	3	3	1	1		6	6	5	6	5	2				46
Still Born	88	62	150															150

TABLE NO. 3.

Deaths for the Second Quarter of 1853, at fifteen distinct periods of life.

Under 1 year,	482
1 to 2	184
2 to 5	249
5 to 10	88
10 to 15	50
15 to 20	79
20 to 30	241
30 to 40	215
40 to 50	158
50 to 60	120
60 to 70	109
70 to 80	63
80 to 90	41
90 to 100	6
100 to 110	0
	<hr/>
Still Born	2085
	<hr/>
Total,	2235

Included in the above Tables, are 174 from the Blockley Almshouse, 190 people of color, and 20 from the country; as follows:

	April.	May.	June.	Total.
Almshouse, . . .	65	47	62	174
Blacks, . . .	67	55	68	190
Country, . . .	7	5	8	20
	<hr/> 139	<hr/> 107	<hr/> 138	<hr/> 384

A case of Congenital Occlusion of the Vagina, relieved by operation. By GEO. L. UPSHUR, A. M., M. D.; Surgeon to U. S. Marine Hospital, Norfolk; Member of Am. Med. Association; Fellow of Med. Soc. of Virginia, &c., &c.

The subject of this notice was a negro girl, aged 18, the property of Dr. Southall, of Smithfield. She was admitted into the Norfolk Slave Infirmary, October 8th, 1852.

About eighteen months ago, she commenced to have symptoms characteristic of the approaching catamenia, recurring every four weeks with great regularity, and continuing at each return about four days, but without any discharge from the vagina. A round, well defined tumor had gradually appeared above the pubes, becoming larger after every return of the menstrual symptoms, and giving the appearance, when she entered the Infirmary, of one advanced to the fourth month of pregnancy. Eight months ago she began to suffer from distension, and recently the pressure of the tumor upon the rectum and bladder has given her a great deal of pain. There are, also, evident contractions of the uterus, as if it were making a strong effort to get rid of its contents. These symptoms have been so severe and so continuous for the last two months as to unfit her for work, and oblige her to remain almost constantly in the recumbent position. The patient was well grown, and the mamma and external genitals fully developed, the clitoris and labia being of the ordinary size and shape, and the pubis covered with hair.

She stated that she had repeatedly felt the venereal desire, and four times had attempted to consummate the venereal act, but without success. Upon examination I found that the finger would pass into the vagina only about an inch and a-half, being arrested by a firm, thick septum, perfectly smooth, and offering a complete barrier to further ingress. By pressing upon the tu-

mor when the finger was in the vagina, fluctuation could be easily felt. On introducing one finger into the rectum, and a catheter into the bladder, and inclining the former upward, and the latter downward, the finger came in contact with the catheter just behind the terminus of the vagina, nothing appearing to be between them but the coats of the rectum and bladder. The tumor could also be felt from the rectum, sinking low down into the pelvis, and giving decided fluctuation when gently struck.

The introduction of the speculum showed that the vagina was perfectly formed, *as far as it went*. There was no enlargement at its uterine extremity—no *cul-de-sac* formed. It seemed as if nature had lacked for materials to form an entire vagina, but as far as she progressed she had done her work perfectly.

On the 15th of October I performed the operation, in the presence of Drs. Moore, Rose, Robt. Tunstall, Southall, and H. Nash. The bladder and rectum being first evacuated, the patient was placed upon the table, as in the position for lithotomy, except that the hands were not bandaged to the ankles. Chloroform was then administered, and as soon as she became insensible, I introduced the speculum up to the terminus of the vagina, and distended the parts as far as possible. The instrument was held in position by an assistant who, at the same time, made pressure upon the uterine tumor. A second assistant retained a catheter in the bladder, in such a position that I could easily touch it with the forefinger of the left hand introduced into the rectum. Taking the view that in the space bounded by the rectum and bladder, and the vagina and os tincæ, there was nothing but cellular tissue, I desired to have such guides in the operation as would prevent me from wounding any portion of the pelvic viscera, my object being to make a passage up to the os tincæ directly in a line with what would have been the axis of the vagina had it been complete. The tumor above, and the finger and catheter behind and in front, performed the part of such guides.

The operation was commenced by perforating the centre of the obstruction with an ordinary trochar, which was pushed in to the ~~th~~ of an inch, and the opening widened by a crucial incision the scalpel, so as to admit the forefinger of my right hand. The speculum was now withdrawn, the finger introduced, and the

obstructing tissue *torn* in every direction as far as I could reach. The dense and unyielding nature of the tissue rendered this part of the operation tedious and difficult, and so fatigued the hand that I was glad to accept the aid of Drs. Moore and Tunstall.

The way being opened as far as we could reach with the finger, the speculum was again introduced, passing in this time about four inches, and being arrested apparently about an inch short of the os tincae. Pressure being still made upon the tumor, I carefully divided layer after layer with the scalpel, until I reached the os tincae, which was immediately made known by an abundant flow of a fluid resembling tar in color and consistency, and perfectly inodorous.

The hips being lowered so as to promote the discharge, the patient was left for four hours. At the end of this time thirty-two ounces had been discharged, and the flow was still going on *with regular uterine contractions*, which continued for twelve hours, until every particle of the secretion had come away. The whole quantity amounted to forty-eight ounces, or about three pints. The patient having rallied entirely at the end of eight hours, was put to bed, and ordered half grain of sulph. morph., and perfect quiet to be observed.

Oct. 16th.—Patient rested well last night, and feels tolerably comfortable this morning. Pulse 80, soft and regular; tongue natural, and appetite good. Upon examining per vaginam, I could easily feel the uterus. The organ was larger than it is in the unimpregnated state, and the os sufficiently patulous to admit the end of the finger in other respects. There was nothing remarkable about it. The patient did not complain of pain from the introduction of the finger, nor was there the slightest soreness from pressure over the abdomen. In the evening, finding that no urine had been discharged since the operation, I introduced the catheter, and drew off thirty ounces. Ordered milk and bread diet in small quantities.

17th.—Had a restless night, with slight shivering and thirst. Soreness upon pressure over the whole abdomen, but particularly in the hypogastric region. Pulse 110, moderately full; skin dry; tongue covered with white fur; anorexia; thirst; bowels constipated, and vaginal discharge whitish, and beginning to be fetid. Ordered an ounce of sulph. magnes. to be given at once.

and the vagina to be syringed with warm water dashed with vinegar, three times a day. Warm fomentations to the abdomen.

18th.—Less soreness than yesterday over the abdomen. Vagina very tender to the touch; discharge feculent; bowels moved once; complains bitterly when the syringe is introduced. Continue treatment.

19th.—General symptoms as yesterday. Vagina hot and tumefied; discharge very fetid; great pain upon introducing the finger; urine drawn off night and morning since the day after the operation. Continue treatment.

20th.—Parts very tender, and very little discharge from them. Administered chloroform, and made a minute examination with the speculum. Vaginal surface intensely red, swollen, and bleeding upon the slightest touch. Os tincæ scarcely discernible for the tumefaction around. In the evening there was some increase of fever, and the patient complained of great soreness. I fear the introduction of the speculum has done harm. Ordered fifteen grains Dover's powder at bed-time.

21st.—Patient passed a very restless night. Intense pain over hypogastrium; pulse 112, small and compressible; thirst; dry skin; decubitus on the back, with legs drawn up. Ordered a dozen leeches to the back.

℞. Hyd. Chlorid mit. gr. xii.

Pulv. opii, gr. iv.

Tart. Emet. gr. iv.

M. Pil. 12—S. one pill every two hours.

22d.—No improvement. Bowels constipated; pulse 120; feeble; tongue dry; complains of agonising pain along the sacrum; some tympanites. Continue pills. Ordered an enema of soap-suds and castor-oil, which produced one evacuation, with comparative relief. Hot fomentations around the hips and hypogastrium.

23d.—Fever continues. Discharge from the vagina is *sansious* and fetid; pain in the sacrum somewhat relieved. Added one grain of quinine to each of the pills, and gave them as before. Ordered f. ʒxii. of magnes. citrat., to be taken at two draughts. Injections (vaginal) of pyroligneous acid, laudanum and water. Continue fomentations.

Evening.—Pulse 130, and feeble; pain diminished; tongue

moist, and coated white; discharge from the vagina large and sanious, (I believe this to be the return of the catamenia;) bowels moved once; patient sleeps, and is sweating profusely; when aroused says she feels very weak. Continue treatment, with milk toddy.

24th.—Patient ptyalised; pain greatly diminished; pulse 100, small, but larger than yesterday; no appetite, but partakes freely of milk toddy and soup; sanious discharge still going on. Discontinue medicine.

25th.—All the symptoms better; passed urine to-day *sua sponte*, the first time since the operation; discharge from vagina less, but still sanious.

From this time *Jane* improved rapidly, so that on the 5th of November I was able to make a very thorough examination of the vagina. The lacerations had healed entirely, but there was so much contraction as barely to admit the forefinger up to the os tincæ; the constriction, however, was dilatable, and I introduced a sponge tent. In the course of a few hours this gave so much pain that it was removed by the nurse, but was again introduced on the next day, and borne with less inconvenience.

On the 12th November catamenia again returned, and continued until the 17th, the quantity and color being natural. During the flow, of course the tent was not worn, nor was any examination made. On the 20th I found that the contraction of the upper end of the vagina had increased; it would scarcely permit my forefinger to pass. The sponge tent was continued until she left the house on the 27th. We informed her master that she was not in a condition to go without treatment, and that unless the process of dilatation was continued, there would be a risk of the vagina becoming again closed. When she left the Infirmary, the forefinger, by exercising a moderate degree of perseverance, could be passed up to the os tincæ. The constriction yielding to persistent pressure like spasmodic stricture of the urethra.

On the 27th of April last *Jane* was again sent to the Infirmary. She stated that, until two months before, she had regularly had her monthly flow, although the discharge was less free, and accompanied with less pain than formerly. She had been under no treatment since I last saw her, the use of the tent being discontinued from the day she left the house. Upon examination I

found it impossible to reach the os tincæ, although there seemed to be an opening up to it. The speculum was introduced, and an attempt to find the opening made with a probe, but without success. No tumor could be felt from the rectum, nor fluctuation through the vagina, and yet I felt sure that there was menstrual blood locked up in the cavity of the uterus.

A second operation was contemplated, but it was deemed expedient to communicate with her master first. Pending the receipt of his reply, the patient was seized with a profuse discharge from the vagina of dark, grumous blood, more fetid than the pus from a rectal abscess. The discharge came on suddenly in the night, May 5th, and continued for five days, with entire relief to all the symptoms. Before any further examination was made a message was received from Dr. Southall, that her services were required at home, and that he would not have another operation performed yet. She was discharged on the 17th May, and I have not heard from her since.

Remarks.—The condition of the patient, when she last entered the Infirmary, is to be accounted for only upon the supposition that after the tents were discontinued, the vagina continued steadily to contract until it entirely closed, so far as the exit of a tolerably consistent fluid was concerned, while the admission of air might readily have been permitted. The contraction may have been of such a character as to make the small opening between the uterus and os externum, fistulous or *valvular* in its shape, thus locking up all secretion behind, but permitting a tolerably free ingress from without for the air. A certain amount of fluid having accumulated, an effort would be made to throw it off; this would produce irritation, possibly ulceration in the neighborhood of the constriction, and finally a breaking down of the obstruction, and a free exit to the fluid. There must have been an admission of atmospheric air to account for the excessive fetidness of the discharge.

It is probable that another operation will be required in this case. The first one may be considered, however, as entirely successful, and doubtless there would have been no ultimate difficulty had the process of dilatation been continued after she left the Infirmary the first time, or had she been permitted to remain til the treatment was completed.

The operation in this case is like to that performed in a similar one by Amussat, except that the *tearing* was completed at one operation, whereas in Amussat's case it required three or four *tearings*, at intervals of three days. As his case is one of considerable interest, and bears a close resemblance in many particulars to that just reported, I will give a brief history of it, condensed from the *Medico-Chirurg. Rev.* for October, 1836.

A girl, 15 years of age, was carried from Germany to Paris to consult some of the leading surgeons there. Her mother stated that she had enjoyed good health until about two years before, when she began to suffer severely from periodic attacks of pain in the abdomen, and in the region of the kidneys. At first they were attributed to obstruction of the bowels; but it was soon discovered that this was not the cause, and on examination it was found that there was no trace of any vagina.

When she came under Amussat's notice, in February, 1832, the abdomen was enormously distended; at the lower part was felt a firm, resisting, globular tumor, supposed to be the enlarged uterus. The external parts of generation appeared to be perfectly normal, but on separating the labia there was no vaginal orifice, but simply a concavity corresponding to the position of the orifice, and lined with a smooth mucous membrane. A catheter having, with some difficulty, been introduced into the bladder, it could be distinctly felt by a finger in the rectum, "in consequence of the great thickness of the intermediate parts;" and higher up the finger met with a large, rounded, tense, and fluctuating tumor, occupying the hollow of the pelvis. The nature of the case now became apparent. The urethra, bladder and rectum were tied together by cellular tissue, and the vagina, in at least two-thirds of its length, "*man quait absolument.*"

The prognosis was considered unfavorable. MM. Magendie and Marjolin thought the only thing that could be done was to perforate the uterus from the rectum, and thus relieve it from its contents. Boyer regarded the case as hopeless, founding his opinion on the history of all similar cases on record. He therefore strongly recommended that nothing should be done. Amussat, however, was unwilling to abandon the case as irremediable. He had but recently seen two cases of imperforation of the vulva, where he had succeeded in re-establishing the vaginal passage,

by gradually tearing asunder the union between the urethra and rectum with blunt instruments and with the fingers. With the consent of the mother and daughter, he proceeded to try the same method in this instance. We used at first a large sized straight sound, pressing it with considerable force against the obstruction in the direction of the vagina "*comme pour faire un trou.*" Having continued this pressure for some moments, he found that there was quite a deep depression left, without laceration or loss of blood; a small piece of sponge was placed in the hollow thus made, and retained by a bandage. Three days afterwards the operation was repeated, with the fingers, the points being laid close to each other and then gradually separated so as to tear the tissues gently. By having a catheter in the urethra and a finger in the rectum the risk of wounding these organs was avoided. When two inches of the canal were gained, he could feel the distended uterus, and, on the 9th of March, he perforated the tumor with a trocar, widened the opening with a bistoury, and let off twelve ounces of dark blood.

In the course of three days, peritonitis set in, with great prostration, tympanites, and a great tendency to stupor. The case was considered very critical, but yielded at last to leeching and mercurialization. The patient ultimately recovered, and when seen by Amussat in July, 1834, two years after the operation, was in fine health, and menstruating regularly. The vagina was very contracted, but adhesion had been prevented by the frequent use of bougies. The true state of the parts, at that time, is described in the following words of Amussat, after consultation with Magendie and Marjolin: "*il existait un petit vagin, qui s'était formé aux dépens des petites et même des grandes levées, la muqueuse ayant été attirée dans le vagin artificiel par la cicatrice; et au fond de ce vagin on découvrait un trou, ou fistule, qui conduisait à la matrice et par lequel l'écoulement des règles se faisait librement.*" The part of this sentence italicised describes, I believe, the state of the parts in my patient, when she last left the Infirmary. Indeed the whole case bears a very strong resemblance to mine, not only in regard to its history and the condition of the genital organs, but also in regard to the mode of relief adopted.

The danger of fatal peritonitis after the operation for occlusion

of the vagina, in cases of retained menses, is admitted by all surgical writers. Even when no violence is done during the operation to the surrounding tissues, the simple evacuation of the contents of the uterus seems to be inseparably connected with this formidable disease. In Amussat's case, the gentlest means were resorted to, and the whole operation conducted with all the caution and skill which distinguished that celebrated surgeon, and yet the patient barely escaped with her life. M. Capuron reported a fatal case in 1840, and was of opinion "that when any portion of the vagina is wanting, it is imprudent to have recourse to any operation, under the risk of compromising the life of the patient."

In the July No. of *Med. Chir. Rev.* for 1830, Mr. Worthington reports a case in which he "carefully divided with a scalpel a dense cellular structure, of about half an inch in thickness, situated at the orifice of the vagina, and gave exit to about a pound of dark colored fluid." Notwithstanding the abdominal tumor subsided immediately, and the girl felt greatly relieved, peritonitis set in three days after, and she died on the fourth day. Professor Languebec relates a similar case, in which death took place on the fifth day after the operation, and attributes the tendency to inflammation to the long retention of the menses.

Boyer, who has treated at considerable length of the various congenital defects of the female organs of generation, says, "death is the inevitable consequence of the accumulation of the menses in the uterus, where there is a *complete* absence of the vagina." I presume, then, that such accumulation is proportionably fatal where there is *partial* absence of the vagina. He says, too, that after patients have escaped the wounding of the rectum and bladder during the operation, he "has known them die from inflammation of the uterus and of the adjoining parts."

But notwithstanding the dangers of the operation for retained menses, especially in those cases where there is total or partial absence of the vagina, no surgeon would be justified in refusing to perform it. Death must be the ultimate result if the accumulation is permitted to go on; this can but occur if an attempt is made to relieve by operation, and there is certainly a *chance* of success, of which the patient should always have the benefit.

Cases of congenital occlusion are fortunately very rare. I

speak not now of simple thickening of the hymen, which frequently serves to retain the menses, and is perforated with a thumb lancet, without difficulty or danger, but of that occlusion which results from a partial or total absence of the vagina. I can find but six cases reported since 1820, although I have carefully examined many of the leading Journals of England and the United States, for 30 years past. The operation, therefore, herein reported, has not been often performed, it is one of some interest, and for this reason I am induced to publish it.

Norfolk, Va., July 16, 1853.

THE MEDICAL EXAMINER.

PHILADELPHIA, AUGUST, 1853.

DEATH OF NATHANIEL CHAPMAN, M. D.

The declining health of Professor Chapman, for some years past, and his advanced age, had long since prepared us for the announcement of his death, which took place in this city on the 1st of July last. He had been, for the last three years, entirely withdrawn both from professional duties and general society, and his death was the result rather of a slow and gradual decay than of any positive disease.

Dr. Chapman was a native of Virginia, where he was born, in Fairfax Co., on the 28th of May, 1780. His family was of an old and respectable English stock; his paternal ancestor, who came to Virginia with the first colony, having been a captain of cavalry in the British army, and the youngest son of a cousin-german of Sir Walter Raleigh. The family settled on the river Pomonkey, some twenty miles from Richmond; but the branch from which the Doctor is descended, migrated, about a century and a half ago, to Maryland, and fixed itself on an estate on the banks of the Potomac, nearly opposite Mount Vernon, which is still, we believe, in their possession. The Doctor's father, however, went to Virginia upon his marriage, where he afterwards remained.

Dr. Chapman received his early education at the Classical Academy of Alexandria, founded by General Washington, where he passed six

years. He subsequently spent a short time in two colleges, though not long enough, as we have heard him say, to owe either any obligation. He came to Philadelphia in the autumn of 1797, and commenced the study of medicine with the late Professor Rush, of whom he became a favorite pupil. He continued three years in the office of Dr. Rush, and in attendance upon lectures at the University of Pennsylvania, from which he received his degree in the spring of 1800. The Doctor's thesis was upon *hydrophobia*, written at the request of Dr. Rush, in answer to an attack upon his favorite theory of the pathology of that disease. Dr. Chapman had previously prepared another thesis, on the "Sympathetic connections of the stomach with the rest of the body," which he afterwards read before the Philadelphia Medical Society. This contained the substance of his peculiar views on fever and other diseases, as well as the *modus operandi* of medicines. While a student, Chapman found time to become a contributor to the *Portfolio*, a magazine of some celebrity in its day. His contributions, under the signature of Falkland, obtained considerable popularity.

In 1801, Dr. Chapman went abroad, where he spent four years—chiefly in Edinburgh and London. He remained a year in London, the private pupil of Abernethy, and thence passed to Edinburgh. Here he not only turned to account the advantages of the then celebrated school of medicine, but he enjoyed also the privilege of free intercourse with the distinguished literary and scientific circles of the modern Athens. He became intimate with many of the eminent persons of those days, among whom may be mentioned Dugald Stewart, the Earl of Buchan, and Mr. (afterwards Lord Chancellor) Brougham,* then a fellow student. Before Dr. Chapman's departure from Edinburgh, Lord Buchan gave him a public breakfast, on the birthday of Washington, at which a number of distinguished persons were present, when he took the occasion to entrust him with an interesting relic, valuable from a double historical association. Lord Buchan had presented to General Washington a box made of the oak that sheltered Sir William Wallace, after the battle of Falkirk, with a request to "pass it, in the event of his decease, to the man in his country who should appear to merit it best." General Washington, declining so invidious a designation, returned it by will to the Earl, who committed it to Dr. Chapman, to be delivered to Dr. Rush, with a view

* In 1809, Dr. Chapman republished, in Philadelphia, Mr. Brougham's speech in the House of Commons, on the British Orders in Council, with a biographical sketch of him, in which he predicted his future eminence. Lord Brougham was then quite a young man, little known in this country.



to its being ultimately placed in the cabinet of the College at Washington, to which General Washington had bequeathed a large sum.

Dr. Chapman returned to the United States in 1804. He established himself in Philadelphia, and in 1808, formed a matrimonial connection with Rebecca Biddle, daughter of Col. Clement Biddle, from which, during a period of nearly fifty years, he derived the highest degree of domestic happiness. His success in practice was rapid, and he became almost immediately the favorite physician of a large portion of the higher classes of Philadelphia, with whom he enjoyed a popularity as a practitioner, which has, perhaps, never been equalled here. A rare combination of personal qualities—attractive manners, wit, great conversational powers, and the kindest feelings—made Dr. Chapman as personally popular as he was professionally eminent.

As a writer and lecturer, Dr. Chapman long occupied a high rank. Soon after his return home, he published a work entitled "*Select Speeches, Forensic and Parliamentary*," with critical and illustrative remarks, in five 8vo. volumes, which attracted much attention. He afterwards, however, confined his pen to scientific topics.

The year of his return to the United States, 1804, he gave a private course of lectures on Obstetrics, which proved so popular that, in 1806, at the age of twenty-six, he was elected adjunct to the Professor of Midwifery in the University of Pennsylvania, and soon afterwards he was elected to fill the chair of the *Materia Medica*. At the death of Rush, in 1812, he was transferred to the chair of Theory and Practice, which he filled from that date till his resignation in 1850. Professor Chapman's lectures, delivered as they were annually to large classes, for a period of nearly forty years, are of course familiar to no small portion of the profession of the United States; and it is almost superfluous in us to speak of them as erudite, elaborate and highly finished compositions, enriched with the stores of the most varied reading and the largest personal experience. They have been given to the public in various forms; many of them were published at length in the early volumes of this journal, and a compendium of them was subsequently issued, under the editorial supervision of Dr. N. D. Benedict, now of New York. Dr. Chapman's delivery of his lectures was animated, graceful, and emphatic. His voice had a slight nasal intonation, which was not unpleasant to the ear when familiarized with it. His lectures were read from the manuscript, but were frequently pointed and enlivened by the extemporaneous introduction of apt anecdote and humorous illustration.

In addition to his course at the University, Dr. Chapman for a long

period gave clinical lectures in the hospital of the Philadelphia Alms House. For nearly twenty-five years, also, he delivered a summer course of lectures in the Medical Institute of Philadelphia. This institution, which is still in existence, and is the oldest in the United States of the kind, was founded by Dr. Chapman, although he generously declined all participation in the fees, or control over the appointments to chairs.

Dr. Chapman has filled numerous honorable appointments in medical and learned societies. He frequently occupied the post of President of the Philadelphia Medical Society, and was the successor to Duponceau in the eminent distinction of the Presidency of the American Philosophical Society.

Dr. Chapman's principal work is his "*Therapeutics*," published in 1817, which went through seven editions, one of them surreptitious. This treatise long maintained distinguished popularity among the works on *Materia Medica*, and now occupies a high rank as a book of reference. The author's views, however, on the *modus operandi* of medicines are of the ultra-solidist school, and, it is hardly necessary to add, not in accordance with received opinions.

In 1820 Dr. Chapman commenced the publication of the "*Philadelphia Journal of the Medical and Physical Sciences*," which he continued to edit for many years. The journal was undertaken with liberal views—the Doctor never receiving any salary for his services. He was subsequently an occasional contributor to different periodicals.

In the foregoing sketch we have presented a brief notice of the leading events in the professional career of Dr. Chapman. We leave, however, to other hands to do justice to the eminent social qualities which so long endeared him to all classes of the city in which the greater portion of his life was spent.

At the semi-annual meeting of the Faculty of Jefferson Medical College, held on the second day of July, 1853, the announcement of the decease of Professors HORNER and CHAPMAN having been made, it was resolved *unanimously*, that the Faculty, in common with their medical brethren, deeply deplore the loss to science of two individuals, the better part of whose valuable lives had been spent in the successful teaching of a profession of which they were distinguished ornaments, and to the advancement of which they had both so largely contributed.

Resolved, That a copy of this resolution be sent to the families of the deceased, and be published in the medical journals.

Extracted from the minutes.

R. M. HUSTON, M. D.,
Dean of the Faculty.

MEDICAL NEWS.

CIRCULAR.

PHILADELPHIA, June 14, 1853.

To the Medical Profession.

In conformity with a resolution of the American Medical Associationⁿ, it becomes my duty to inform you of the decision of the Committee of Publication, in regard to the price at which the forthcoming volume of Transactions will be furnished to the Association and others.

The price of *single copies* has been fixed by the Association at *five dollars*.

Any *individual* desiring two copies, will be furnished with them upon his remitting to the Treasurer *nine dollars*.

Societies, associations and institutions requiring *six* copies for the use of their members, will be supplied with them on remitting to the Treasurer *twenty-five dollars*, or they will be supplied with twenty-five copies on remitting *seventy-five dollars*.

Those who wish volumes 5 and 6, may obtain them by remitting *eight dollars*.

In consequence of the numerous illustrations, many of them highly finished colored lithographs, with which the forthcoming volume will be accompanied, its cost will considerably exceed that of either of those previously issued by the Association. To defray the cost of its publication, at least *fifteen hundred dollars*, in addition to the amount already received by the Treasurer, will be required.

Your attention is called to the following resolution, adopted at the last session of the Association :

"Resolved, That the Delegates from the several States be requested to appoint committees, who shall aid the Committee of Publication in procuring subscribers for and in distributing the annual Transactions of the Association."

D. FRANCIS CONDIE, *Treasurer*,
and Ch'm Com. Pub. A. M. A.

Dr. SOCRATES MAUPIN, late of the medical department of Hampden Sidney College, has been elected *Professor of Chemistry* in the University of Virginia, in the place of Dr. SMITH, resigned.

Dr. G. A. WILSON has been elected to the new chair of *Physiology and Medical Jurisprudence* in the medical department of Hampden Sidney College in Richmond, Va.

RECORD OF MEDICAL SCIENCE.

PATHOLOGY AND PRACTICE OF MEDICINE

On employment of Ergot of Rye in some forms of Retention of Urine. By M. PASSOT, of Lyons.—Ergot of rye has not only the property of exciting the uterine contractions in cases of inactivity of the uterus, but is also very efficacious in the retention of urine which is caused by atony and paralysis of the bladder. MM. Baudin and Payan of Aix, were the first who endeavored to demonstrate that this agent does not act on the uterus alone, but rather on the lower part of the spinal cord. They also speak very highly of it as well in the affection which we have now under consideration, as in weakness or paralysis of the lower extremities.

Drs. Kinsley, Canuto-Canuti, Sainmont de Rocroy, Allier of Marcigny, have also recorded cases which bear favorable testimony to the utility of ergot in paralysis of the bladder. I will now briefly mention some of them :

Capt. B., aged 60, suffered from dysuria, which had increased greatly during the last three months, until it suddenly turned to a complete retention, which necessitated the employment of the catheter several times a day. For two months a host of remedies were used without avail ; there was not the slightest improvement. The prostate became enlarged, and the patient suffered much from the use of the catheter, which had to be passed twice every day.

Fifty centigrammes (about eight grains) of ergot of rye, infused in a cupful of boiling water, was administered three times a day. At the expiration of six hours, the patient passed a small quantity of urine, and required the use of the catheter only once in the day. Afterwards it was only passed once in the forty-eight hours, and after ten days the bladder was left to itself (*Kinsley's Journal des Comm. Med. Chir.*, March, 1844.)

A lady, aged about 75, was affected with paralysis of the bladder, which for a time required the use of the catheter. Ergot was prescribed in doses of fifteen decigrammes (about twenty-eight grains) in infusion. On the sixth day of this treatment, it was no longer necessary to pass the instrument, the patient being able to pass water spontaneously (*Canuto-Canuti, Bull. des Sciences Med. de Bologne*, 1845.)

A man, named Rousseau, aged 58, of a nervous temperament, was, in consequence of a fit of passion, attacked with a complete inability to urinate. The bladder was obliged to be emptied by the catheter. The inertia of this organ continued in spite of cold injections to it, cold enemata, the application of ice, also a blister to the hypogastrium.

Strychnine applied, by means of ointment, as a dressing to the blister, also by frictions in the axillæ, on the following day produced cramps in the legs and arms, and was presently accompanied by stiffness, so that it became necessary to discontinue the use of this remedy. There was not the slightest action on the bladder. It was at this stage that the author

conceived the idea of giving ergot of rye. He prescribed six grammes (about ninety-two grains) coarsely powdered, to be put into a litre (about thirty-four ounces) of water, macerate for two days, filtered, and injected cold into the bladder. Seven minutes afterwards the patient experienced a desire to urinate, which, however, he could not then satisfy. The next morning the injection was again administered. Eight minutes after he had vesical tenesmus, and then spontaneous emission of urine. The injections were continued for some days. The cure was complete. (*Saint-mont, Gazette des Hôpitaux*, 1848.)

In 1848, Dr. Allier of Marigny, sent a letter to the National Academy of Medicine, in which he gives as the result of his observations, that in only one out of fourteen cases ergot proved of no use.

I also am in possession of some cases which, in an incontestible manner, prove that ergot is capable of restoring the contractility of the bladder. The following is the most remarkable:—In the month of July, 1846, I was consulted by M. H., aged 60, of a dry constitution, and a very well-marked nervous temperament. Mr. H. admits having indulged in venereal excesses, and in the excesses of the table, and it is these that he blames for the vesical paralysis from which he is now suffering, and which requires the catheter twice a day: otherwise there is no symptom of organic alteration, no fever, no enlarged prostate. The canal of the urethra is free, through its entire length, and the urine when drawn off is perfectly clear. After having experienced the uselessness of tincture of cantharides and blistering the hypogastrium, I used the following prescription:—

Freshly powdered ergot	2 grammes (30 grains.)
Mucilage,	120 " (31 ounces.)
A tablespoonful every half hour (shake the bottle.)	
Ergot of rye, powdered,	15 decigrammes (23 grains.)
Coca butter,	a sufficiency.

To be made into two suppositories; one of them to be introduced night and morning.

On the same day, at the expiration of some hours, M. H. felt a desire to micturate. At my evening visit I ordered a bath. The patient was scarcely in it before micturation took place spontaneously and with force. From this time to his death, M. H. has always passed water freely and without the assistance of the instrument. I should add, that to make certain of the cure, I continued the remedy for three or four days, but in a decreasing dose. M. H. died on the 30th January, 1848, of an acute pleuro-pneumonia, during the course of which not a single morbid symptom appeared in the bladder. It is therefore certain that ergot cures retention of urine which depends on pure and simple atony or paralysis of the bladder. But with regard to paralysis consecutive to apoplexy, or depending on other affections of the nervous centres, it is well known that they are unaffected by the remedy we are treating of.—*Med. Times and Gaz.*, from *Gaz. Med. de Lyon* and *Rev. Med. Chir. de Paris*.

Cysticercus in the Human Brain. By A. BRUNNICHE.—A servant girl, aged 43, of healthy frame and aspect, but for three years subject to epileptic fits, came to the hospital May 3, 1851, suffering from supposed ague. Upon admission, her symptoms were, localised pain all over the left part of the forehead and temples, weakness in the muscles of the face, sparks and flashes of light in the right eye, occasional dilatation of the pupil, squinting, marked diminution of the intellectual capacity, combined with erroneous ideas and hallucinations, slow, unconnected utterance, frequent vomiting, involuntary discharge of fæces, slow pulse, and weakness in the lower extremities. She had often complained of cold, and want of circulation in the fingers; so that, at the commencement, her illness had been mistaken for ague. She died May 21.

Examination of the Body.—Skull-cap thinner than natural; the surface of the brain bulged forwards from the cranial cavity; the membranes were thin, but full of blood. There were three cysticerci within the cranium. The largest lay in the substance of the anterior lobe of the left hemisphere in a cavity the size of a hen's egg, projecting into the anterior part of the lateral ventricle, and making a marked depression into the corresponding corpus striatum. One worm was contained in this cavity, but in no way connected with the wall. It was surrounded by a sac as large as a hazel-nut, whence proceeded other similar, but distinct prolongations. A second worm was found in the middle lobe of the left hemisphere, near the preceding; and a third in the posterior part of the right hemisphere, both invested in a surrounding membrane. The three worms were unconnected with one another, and in no organic union with surrounding parts; yet they had formed for themselves a well-organised capsule or bag. As regards the question, how these animals or their ova found their way into the human organism, the author believes that they must have been conveyed to the brain by the current of blood, after being taken up from the free surface of the body. Some authors have, in these cases, remarked no cerebral symptoms. In this there was marked disturbance of the intellectual faculties, although the substance of the brain was not in any way altered.—*Med. Times and Gaz.* from *Hospitals Meddelelser*.

SURGERY.

On the use of Collodion for Erections accompanying Blennorrhagia. By Dr. DORINGER.—In the *Med. Central Zeitung*, there is reported a case of a rather curious application of collodion for gonorrhœal erections, and the result was such as we would like to see borne out by other cases: A young man, aged 28, was attacked for the third time with a blennorrhagia, which was accompanied by such severe and painful erections, that the patient could hardly stay in bed half an hour. After having tried without avail both camphor and narcotics, Dr. Doringen ordered cold fomentations, and when the penis had resumed its natural size, the application over its whole extent, even including its prostatic portion, to a strong coating of collodion. This had the desired effect, for from that moment the patient had no erection, and suffered only from a slight

scalding in passing urine. What proves that the amelioration was really due to the means employed is, that on the morrow, the collodion being taken off, the erections returned, but not so severely, and again ceased on the application of a fresh coating of collodion.—*Med. Times and Gaz.*, from *Rev. Med. Chir. de Paris*.

Lithotomy.—The extraction of a urinary calculus from the bladder by the recto-urethral operation has been now successfully accomplished by Mr. Lloyd, in three instances, at St. Bartholomew's Hospital. The stone was removed quickly, and the patients have done well. It may, therefore, be interesting to state, that the proceeding resembles, in great measure, the operation performed by Vacca Berlinghieri, and described by Malgaigne. (*Manuel de Médecine Opératoire*, p. 686, 1843.) The subject having been placed as in the lateral operation, a staff is introduced into the bladder, and given to an assistant, who is directed to hold it in a vertical direction, so that the groove should correspond exactly with the mesial line. The index finger of the left hand is introduced into the rectum, the palmar surface being turned forwards. Upon its flat surface a straight bistoury is inserted to a depth of eighteen millimetres (about nine lines) from the margin of the anus. The handle of the knife being then depressed, the point is thrust through the walls of the intestine, and the edge being also carried upwards, the sphincter ani, the inferior part of the rectum, the perinæum from the anus to the bulb, and the cellular interval which separates these parts, are divided together. The inferior region of the prostate can then be felt through the wound. In front is felt the membranous portion of the urethra containing the staff. The nail of the index finger is next used, as in the lateral operation, to discover the groove in the staff, and to conduct to it the point of the bistoury. The staff is then withdrawn, and the bistoury is thrust into the bladder; the edge is turned downwards, so as to divide partially, but not completely, the prostate in the mesial line, care being taken to avoid re-entering the incision of the rectum. Therefore, this operation effects the division of those parts which were torn in the old operation with which the "apparatus major" was associated. Mr. Lloyd introduces a speculum into the rectum; his incision is, perhaps, somewhat deeper than that of Vacca Berlinghieri; he *dilates*, but does not cut the prostate, unless the stone should be of very considerable size.

The incision appears remarkably small when the operation is concluded; and, as Malgaigne has observed, at each effort of excretion, the mucous membrane descends over the wound, which is thus placed under conditions most favorable to healing without leaving a fistula.—*Med. Times and Gaz.*

OBSTETRICS.

On Painful Distension of the Vagina after the Birth of a Child. By Dr. LEOPOLD.—Dr. Leopold states that he has several times met with examples (never in primiparæ) of excessive suffering, coming on from half an hour to an hour after the passage of the child, and referred to the vagina. It is of the most agonizing character, described by the women as worse than when the child is passing, and causing them to twist and

toss about in agony. It arises from distension of the vagina, either by accumulated coagula, or a very large placenta. In the first case, owing to the quantity of blood lost, there are always the early symptoms of uterine hæmorrhage; and the women, usually having suffered already from hæmorrhage in former labors, are dreadfully frightened at their danger. The softish but not distended uterus is felt pushed up into the umbilical region. The hand should be at once introduced into the vagina, and after the coagula are completely removed, it should be retained there for at least half an hour, keeping two fingers on the watch within the relaxed os uteri, and irritating this if required.

In the other case there is always a large placenta, which will not yield to moderate traction, partly because its size prevents it from easily traversing the vaginal passage, partly from a spasmodic action of the *constrictor cunni*, and partly because the membranes still remain in connection with the uterus to some extent. Notwithstanding the pain it will cause, the entire hand must be passed into the vagina, so as to embrace the whole placenta and bring it down.—*Neue Zeitschrift für Geburtskunde*, from *Brit. and For. Med.-Chi. Rev.*

MATERIA MEDICA AND THERAPEUTICS.

Cases of Poisoning with Lucifer Matches. By C. TRENERRY, Esq., Surgeon of the Civil Hospital, Gibraltar, and Corresponding Member of the Surgical Society of Ireland.—Three cases, within a very short period, wherein Lucifer matches were swallowed for the purpose of self destruction, have presented themselves to my observation. Two of them proved fatal; the third recovered.

The history of two of these cases may be related in a few words: one, a young Spanish lady, resorted to the expedient from disappointment: the other was a Spanish widow, mother of three children, who, having committed herself with a young man, aged 18, hoped by taking the poisonous substance, to induce him to marry her. The contents of the stomach were dislodged, and she recovered.

The third case was that of a native of this garrison, aged 22, who was engaged to be married, but unfortunately too close an intimacy with her lover prior to this rash act exhibited itself, she being in the seventh month of pregnancy. Her aunt states that at no time were the symptoms very urgent, nor is it known when the matches were swallowed.

The deceased first complained of pain in the stomach at 5, A. M., on Tuesday, the 17th of May, 1853, for which some "Yerba Louisa" tea was given, which relieved her. At 8, A. M., she reluctantly partook of an egg and tea for breakfast, and at eleven o'clock had some broth, but could not bear the sight of bread. During the day she complained of thirst and giddiness: in the evening took tea and went to bed. The next morning, the 18th, about 6, A. M., still suffering from pain and giddiness, her aunt gave her a dose of castor oil, which she ejected immediately, and frequent vomiting supervened during the day. An enema of the decoction of marsh mallows and olive oil was administered, which afforded temporary relief. In the evening, she confessed that she had taken two boxes of Lucifer matches, containing about one hundred. A

medical man was immediately consulted, who ordered an emetic and olive oil, which she said relieved her very much; but vertigo, vomiting, intense thirst, slight convulsions, and syncope, followed in rapid succession, and after midnight she became insensible, and expired at 6, A. M. on the 19th. The following day, at noon, I made a post-mortem examination, and noted the following: Body well formed, but of short stature. Face has a distorted and dirty appearance from irregular patches of congestion. Globe of the eyes very prominent; cornea of a dry and dull appearance; pupils dilated, and blood oozing from the nostrils. Livid spots about the lips, gums and tongue. *Upper part of chest and shoulders quite green and emphysematous from decomposition.* Breasts plump, and nipples marked by darkish areola and papillæ. Abdomen distended and tympanitic, *but no appearance of decomposition*, except in the fold of the groins. Vagina plugged by a dark coagulum of blood, the os uteri dilated to about the size of a shilling, and the head of a child pressed against it, as if labor had commenced prior to death. Dark feculent, or tarry-looking matter escaping from the anus. Finger nails livid, as also back part of the anus and depending parts of the sides of the body, and in some parts it is quite green. Lower extremities pale and chloritic-looking; the calf of left leg being hard and globular, as if affected with cramp. Gas escaped with a hissing noise from the apertures made by the saw in opening the skull. Dura mater dry and glistering; substance of brain so much softened as to prevent the usual examination. Ventricles very dry. Cerebellum, a perfect pulpy or custard-like mass. The encephalon throughout of a dirty cream color. Pectoral muscles soft, and easily torn. Lungs dark-colored, but crepitant; their posterior portion congested, as is usually observed after death. Pericardium contained about two ounces of dark bloody serum. Heart pale and flabby; auricles and ventricles empty. Abdominal viscera had a dull appearance. Stomach greatly distended with gas; its external surface healthy-looking. Small intestines collapsed; large intestines not so distended as is usually seen. Anterior surface of liver pale. Gall-bladder empty. Spleen very dark-colored. Uterus contained a well-formed but dead female fetus, of about seven or eight months, floating in the liquor amnii, the membranes being unbroken. The cellular tissue and depending or posterior portions of the liver, pancreas, spleen, and kidneys, unusually congested, amounting almost to extravasation of blood. The pharyngeal and cardiac end of the œsophagus of a dark or bruised color; the canal appears contracted and the mucous membrane dry, one rounded carbonaceous head of a match adhering to its surface. Stomach contained about four ounces of a dark, unctuous treacly-looking fluid. The mucous-membrane of a whitey-brown color, and the cardiac or larger end thickly vesicated, as if scalded; the middle portion retained its rugous appearance, although much thicker and paler than usual. The pylorous quite smooth, pale, and thickened, as also the mucous membrane of duodenum, which, with about three feet of the jejunum, contained a similar black-looking fluid as the stomach. The remaining portion of small intestines were merely lined with a creamy feculent substance interspersed with patches of greenish or bilious matter.—*Dublin Medical Press.*

Mr. C. W. JAMES, of Cincinnati, Ohio, is our General Travelling Agent for the Western States, assisted by JOHN T. DENT, H. J. THOMAS, O. J. DYER, C. M. L. WISEMAN, ISAAC BARTLETT, R. C. COOK, A. L. CHILDS, and L. R. BROWNELL. Mr. ISRAEL E. JAMES and assistants for the Southern States.

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SESSION OF 1853-54.

The regular Course of Lectures will commence on Monday the 10th of October, and continue until the first day of March. The ANNUAL COMMENCEMENT for conferring degrees will be held *early in March*, instead of at the end of the month, as formerly.

ROBLEY DUNGLISON, M.D.,	Professor of Institutes of Medicine, &c.
ROBERT M. HUSTON, M.D.,	Prof. of Materia Medica and Gen. Therapeutics.
JOSEPH PANCOAST, M.D.,	Prof. of Gen., Descriptive and Surg. Anatomy.
JOHN K. MITCHELL, M.D.,	Prof. of Practice of Medicine.
THOMAS D. MÜTTER, M.D.,	Prof. of Institutes and Practice of Surgery.
CHARLES D. MEIGS, M.D., }	Prof. of Obstetrics and Diseases of Women and Children,
FRANKLIN BACHE, M. D.,	Prof. of Chemistry,

ELLERSLIE WALLACE, M.D., Demonstrator of Anatomy.

Every Wednesday and Saturday in the month of October, and during the Course, Medical and Surgical cases will be investigated, prescribed for, and lectured on before the class. During the past year, *two thousand one hundred and eighty-eight* cases were treated, and *three hundred and eighteen* operations performed. Amongst these were many major operations—as amputation of the leg, foot and mammae, lithotomy, lithontripsy, ligation of the carotid, plastic operations of the face, neck, arm, &c., removal of superior and inferior maxillary bones, reduction of luxations of hip, shoulder, &c., treatment of fractures.

The Lectures are so arranged as to permit the student to attend the Lectures and Clinical demonstrations at the Pennsylvania Hospital.

On and after the 1st of October, the dissecting rooms will be open, under the direction of the Professor of Anatomy, and the Demonstrator.

FEES.

Matriculation, which is paid only once,	- - - - -	\$ 5
Each Professor, \$15,	- - - - -	105
Graduation,	- - - - -	30

The number of Students during the last Session was 556; and of Graduates 223.

July, 1853—4t

R. M. HUSTON, M. D.,
Dean of the Faculty, No. 358 Arch street.

PENNSYLVANIA COLLEGE. MEDICAL DEPARTMENT.

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WILLIAM DARRACH, M. D.,	Prof. of the Theory and Practice of Medicine.
JOHN WILTBAKE, M. D.,	{ Prof. of Obstetrics and Diseases of Women and Children.
HENRY S. PATTERSON, M. D.,	
DAVID GILBERT, M. D.,	Prof. of the Principles and Practice of Surgery.
JOHN J. REESE, M. D.,	Prof. of Medical Chemistry and Pharmacy.
J. M. ALLEN, M. D.,	Prof. of Anatomy.
FRANCIS GURNEY SMITH, M. D.,	Prof. of the Institutes of Medicine.

—

WILLIAM H. GOBRECHT, M. D., Demonstrator of Anatomy.

—

The Lectures for the Session of 1853-4 will commence on Monday the 10th of October, and continue until the ensuing 1st of March.

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Clinical Instruction at the College and at the Pennsylvania Hospital in the immediate vicinity.

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For further information apply to D. GILBERT, M. D., *Registrar*,
July, 1853—4t. No. 181 N. Ninth St., Philada.

UNIVERSITY OF LOUISVILLE.

MEDICAL DEPARTMENT.

The Lectures in this Department, will commence on the last day of October next, and terminate on the last day of February.

CHARLES W. SHORT, M. D., Emeritus Professor of Materia Medica and Medical Botany.

BENJAMIN R. PALMER, M. D., Professor of Descriptive and Surgical Anatomy.

LUNSFORD P. YANDELL, M. D., Professor of Physiology and Pathological Anatomy.

SAMUEL D. GROSS, M. D., Professor of the Principles and Practice of Surgery.

HENRY MILLER, M. D., Professor of Obstetric Medicine.

LEWIS ROGERS, M. D., Professor of Materia Medica and Therapeutics.

BENJAMIN SILLIMAN, Jr., M. D., Professor of Medical Chemistry and Toxicology.

AUSTIN FLINT, M. D., Professor of the Theory and Practice of Medicine.

T. G. RICHARDSON, M. D., Demonstrator of Anatomy and Dissector in Pathological Anatomy.

The fee for admittance to the Lectures of each Professor is \$15, (\$105 in all,) payable invariably in advance. Matriculation and Library fee together, \$5. Graduation fee, \$25. Practical Anatomy and Dissection, \$10—ticket to be taken at least once before graduation. Rooms open from 1st October.

A preliminary course of Lectures, free to all students, will be delivered during the month of October.

Clinical instruction is given twice a week at the Louisville Marine Hospital.—Ticket \$5, to be taken once before Graduation.

A Clinique has also been established in connection with the University, at which operations are performed and cases prescribed for and lectured upon in presence of the class.

Good Boarding can be procured at from \$2 50 to \$3 per week.

July, 1853—4t.

L. P. YANDELL, M. D.,
Dean of the Faculty.

BALTIMORE COLLEGE OF DENTAL SURGERY.

FOURTEENTH SESSION, 1853-'54.



CHAPIN A. HARRIS, A. M., M. D.,
Prof. of Principles and Practice of Dental Surgery.
THOMAS E. BOND, JR., A. M., M. D.,
Prof. of Special Pathology and Therapeutics.
WASHINGTON R. HANDY, M. D.,
Professor of Anatomy and Physiology.
ALFRED A. BLANDY, M. D.,
Professor of Operative Dentistry.
PHILIP H. AUSTEN, M. D.,
Professor of Mechanical Dentistry.
REGINALD N. WRIGHT, A. M., M. D.
Lecturer on Chemistry and Metallurgy.

The size and convenient arrangement of this new building, (corner of Lombard and Hanover streets,) in connection with their greatly extended means and improved plan of instruction, enable the faculty of this, the oldest of Dental Colleges, to offer to the students of dentistry unsurpassed facilities for a complete course of theoretical and practical education.

The lectures on Anatomy, Surgery and Physiology will be amply illustrated by models, drawings, and preparations, and by operations upon the living and dead subject. The dissecting room will be at all times well supplied. These Lectures, together with those upon Pathology, Therapeutics, and Materia Medica, will fully instruct the student in the general principles of each department, dwelling with especial minuteness upon all that relates to the art and science of Dentistry.

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In connection with the Lectures in the Practical Department is a large Mechanical room, fitted up completely with all the necessary appliances, and an Infirmary which has an extensive and constantly increasing practice. The work of the Infirmary and Mechanical rooms will be performed by the students under the immediate direction of the professors in charge. A confident self-reliance is thus acquired which could not be gained by any amount of mere oral or demonstrative teaching.

Demonstrations will also be given in the manufacture of artificial block teeth.

The regular course of lectures will commence on the 1st of November, and close the 1st of March. The Infirmary, Mechanical and Dissecting Rooms will be opened on the first Monday in October, during which month there will be occasional lectures from each of the professors.

It is important that every student should, if possible, be present during this preliminary month. The Infirmary will continue open during the summer for the benefit of those students who remain in the city between their first and second courses of lectures.

Candidates presenting themselves for examination must have attended two full courses of lectures. Certificates of four years dental practice, or of one full Course in any respectable Dental or Medical College, will be received as equivalent to the first Course.

Tickets for the Course, \$110. Dissecting Ticket, (optional,) \$10. Diploma Fee, \$30. Matriculation Fee, \$5.

Rooms and board may be obtained at from \$2 50 to \$4 00 per week.

TEXT BOOKS.—Harris' Principles and Practice of Dental Surgery, 5th Edition; Bond's Dental Medicine, 2d Edition; Handy's Anatomy; Carpenter's Physiology; Mütter's Liston's Surgery; Jourdain's Surgical Diseases of the Mouth; Mitchell's or Dunglison's Therapeutics and Materia Medica; Fowne's, Graham's or Turner's Chemistry; Wood's or Watson's Practice of Medicine.

June, 1853.

P. H. AUSTEN, DEAN,
84 Sharp street, Baltimore.

UNIVERSITY OF NASHVILLE.

MEDICAL DEPARTMENT.

The Third Annual Course of Lectures in this Department will commence on Tuesday the 1st of November next, and continue till the 1st of the ensuing March.

PAUL F. EVE, M. D.,	Principles and Practice of Surgery.
JOHN M. WATSON, M. D.,	Obstetrics and the Diseases of Women and Children.
A. H. BUCHANAN, M. D.,	Surgical and Pathological Anatomy and Physiology.
W. K. BOWLING, M. D.,	Institutes and Practice of Medicine.
C. K. WINSTON, M. D.,	Materia Medica and Medical Jurisprudence.
ROBERT M. PORTER, M. D.,	General and Special Anatomy.
J. BERRIEN LINDSLEY, M. D.,	Chemistry and Pharmacy.
WILLIAM T. BRIGGS, M. D.,	Demonstrator of Anatomy.

A full *Preliminary Course* of Lectures will be given by the Professors commencing also on the first Monday of October.

The Students will have free access to the State Hospital.

Fee of each Professor \$15. Matriculation ticket \$5. Dissecting ticket \$10. Graduation fee \$25.

Good board can be obtained in the city at from \$2.50 to \$3.00 per week. Further information may be obtained by addressing the Dean.

J. B. LINDSLEY, M. D., Dean.

Nashville, Tenn., June, 1853—5t.

MIAMI MEDICAL COLLEGE OF CINCINNATI.

The regular Course of Lectures will commence on the last Monday in October next, and continue four months.

FACULTY.

- R. D. MUSSEY, M. D., Professor of Descriptive and Operative Surgery.
J. P. JUDKINS, M. D., Professor of Surgical Anatomy and Surgical Pathology.
CHAS. L. AVERY, M. D., Professor of Anatomy.
JOHN F. WHITE, M. D., Professor of the Theory and Practice of Medicine.
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C. G. COMEGYS, M. D., Professor of Institutes of Medicine.
H. E. FOOTE, M. D., Professor of Chemistry.

A *Preliminary Course* will be given during the month of October on some important specialities in Medicine and Surgery. These lectures are free.

The *Dissecting Rooms*, under the superintendence of the Adjunct Professor of Anatomy, will be opened on and after the first of October.

Fees for the whole Course \$90. Matriculation Ticket \$5. Dissecting Ticket \$10. Hospital Ticket \$5. Graduation Fee \$25.

Students, on reaching the city, by calling at the College, N. W. corner of Fifth and Western Row, will receive every attention.

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Aug., 1853—3t.

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EZRA S. CARR, M. D., Prof. of *Chemistry*, and *Natural History*.

WILLIAM SWEETZER, M. D., Prof. of *Theory and Practice of Medicine*.

MIDDLETON GOLDSMITH, M. D., Prof. of *Surgery*.

WILLIAM C. KITTRIDGE, M. D., Prof. of *Medical Jurisprudence*.

CORYDON LA FORD, M. D., Prof. of *Anatomy and Physiology*.

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May, 1853—1y.

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NOTICE TO CORRESPONDENTS.

Communications and Books for notice should be addressed to the Editors, care of Messrs. Lindsay & Blakiston.

Letters, &c., connected with the *business affairs* of the Journal should be addressed to the Publishers.

Papers for publication must be received *before* the 20th of the month, or they cannot appear in the forthcoming number.

The following Journals have been received in exchange:

American Journal of Medical Science. Jan., 1853.

Western Lancet. December.

New Orleans Monthly Medical Register.

Southern Journal of the Medical and Physical Sciences.

New Orleans Medical and Surgical Journal.

Medical Recorder.

Western Medico-Chirurgical Journal.

Union Journal of Medicine.

Medical News. Philadelphia.

Buffalo Journal.

New York Medical Gazette.

The Boston Medical and Surgical Journal. (Weekly.)

Stethoscope and Virginia Medical Gazette.

New Jersey Medical and Surgical Reporter.

Transylvania Medical Journal.

Southern Medical and Surgical Journal.

New Hampshire Journal of Medicine.

The London Lancet. (Weekly, London.)

The Medical Times and Gazette. (Weekly, London.)

Dublin Medical Press.

London Journal of Medicine.

Edinburgh Medical and Surgical Journal.

Journal of Psychological Medicine.

London Pharmaceutical Journal.

Edinburgh Monthly Journal.

Journal of Pharmacy.

North Western Medical Intelligencer.

American Journal of Insanity.

BOOKS RECEIVED.

Ricord's Letters on Syphilis. From A. Hart, Esq.

Silliman's Chemistry. From Publishers.

Quekett's Lectures on Histology. From H. Bailliere, Esq.

Animal Chemistry, by Dr. Bence Jones. From the same.

Notes on Carpenter's Physiology, by Dr. Mackall.

What to observe in Medical Cases. From Blanchard & Lea.

Kirke and Paget's Physiology. Second American Edition. From the same.

The foreign correspondents of the Examiner will please direct their Exchanges and other communications to the care of Mr. Thos. Delf, No. 21 Paternoster Row, London, or Mr. H. Bossange, 21 Bis, Quai Voltaire, Paris.

THE
MEDICAL EXAMINER,
AND
RECORD OF MEDICAL SCIENCE.

NEW SERIES. — NO. XCVIII. — FEBRUARY, 1853.

ORIGINAL COMMUNICATIONS.

Surgical Sketches. By W. E. HORNER, M. D., Prof. of Anatomy in the University of Pennsylvania, Senior Surgeon at the St. Joseph's Hospital, &c. &c.

A Military Hospital at Buffalo, New York, in the year 1814.

(Continued.)

In regard to wounds from grape and cannister shot, they are more torn, owing to the larger size of such projectiles. And from the greater momentum much more mischief is done in the laceration of the soft parts, and in the comminution of bones, than happens from musket balls. Such missiles pass straight on, and, except when the surface of the body or the limbs are concerned, they are for the most part immediately fatal, or in a short time. Musket balls, on the contrary, have their course very much varied by the material resistance they meet with in the different tissues and especially by the angle at which they strike. Hence it is not unusual for them to pass around a part one half of its circumference immediately under the skin, giving delusively the appearance of a wound through and through.

If the smaller spherical projectiles from cannon make terrible wounds, such of the latter as arise from the angular fragments of exploded hollow shot are still more formidable in the rent and destruction of parts, and there are still fewer recoveries from

them. Rail-way accidents and steam explosions produce a class of accidents very nearly allied to them.

I have said that in the lighter wounds, poultices were early dispensed with ; the inflammatory symptoms were mild, and subsided as the discharge of pus increased. The local treatment in common use, was the daily washing of the wounds with soap and warm water, and a simple plaster of basilicon spread on patent lint. We were, however, frequently in want of the latter, and its place was tolerably well supplied by slips of the cotton muslin which we used for bandages. When the sores showed an indisposition to heal, they were washed freely with French brandy or with whiskey. The poultice of bread and milk, of flaxseed, or of slippery elm, was resorted to with great advantage in soothing the irritability and extreme sensibility of some wounds. Situated, however, as we were, milk was a scarce article, and the bread of an inferior quality. The cold water dressing, since so much eulogized, was not attempted except in the form of saturnine lotions. Having been in Paris in the celebrated outbreak there in June 1848, and witnessed the cold water dressings in several of the Hospitals, I can not say that I considered it equal in comfort and in efficacy in severe cases to the preceding well established routine of warm poultices. It may retard inflammation and also repress it, and in these two lights may do well ; but another important indication in many wounds is to make provision for the tumefaction which follows them, and nothing relaxes rigid tissues with more certainty than hot fomentations and poultices. Any one who will try the experiment of treating a sprained ankle by cold applications alone, in contrast with large hot poultices, using in both cases leeching besides, will be convinced of the vastly superior efficacy of the poultice, and see that the treatment is abridged nearly one half in point of time by the use of the latter. On the occasion alluded to in Paris, it afforded me pleasure to perceive that the dressing of wounds in the wards of the Hotel Dieu, and of the Saint Louis, was still by the warm well made poultices, while the cold water fomentation or irrigation was almost exclusive in the Val de Grace, (a military hospital.) In the Neckar, the treatment was eclectic, some patients being dressed with cerate, spread on perforated linen, others with poultices, and others with cold water.

I have in a preceding place, alluded to the paramount interest attaching to amputations, and especially the period at which they should be performed. This question was for a long time considered as settled upon the authority of the leading surgeons of the French and of the British Armies, during the great wars at the beginning of the present century. They generally asserted their conviction in favor of amputation directly after an injury, instead of waiting for two, three or more weeks. The ancient doubts are now, however, beginning to revive, and the more recent statistics are received with no small attention.

The frequency of fatal results upon direct amputation leads to the inquiry necessarily, whether a severe operation upon the heels of a severe accident is not, however well performed, more injurious than beneficial to a patient, and whether, in view of preventing an ulterior harm, it does not produce an immediate mischief? Whether the true course in such cases would not be either to let the limb undergo the ordinary treatment of poultices, &c., or if the nourishment of it could not be kept up beyond the injured spot, to do no more than simply cut it off through the ray of connexion which it may have with the part above. In reproducing such ideas it is to be admitted that circumstances are to regulate, in a measure, the proceeding. When the patient can be placed at once in convenient quarters, the refraining from amputation has much to recommend it. But when he has to be transported roughly a great distance, the amputation of the thigh, or at least the immediate excision of the dangling part of the member, would probably be better than to leave all as the accident placed it. It appears to me that the leading inducement to many amputations immediately after injury is only the making of a better stump; but nature has great capacity in this respect, in the most unseemly injuries; and by her law if a bone protrudes beyond its limit of covering by muscle and skin, she in a few weeks, reduces its length to the proper mark by the process of exfoliation. This I have frequently seen accomplished when a spontaneous retraction of the muscles from the bone had denuded it.

Wiseman, surgeon to Charles II. of England, counselled that if there be no hopes of saving the member, the amputation should be done upon the receipt of the wound, before the patient's spirits

were overheated with pain or fever, his strength impaired by loss of sleep, and while he is still amazed, as it were, with the accident. Le Dran was of the same opinion, and especially in the case of wounded joints. Ranby, surgeon to George II. in the fore part of the last century, deriving his experience from the campaigns in Flanders, advised amputation on the spot, even on the field of battle. But the most prominent authority of the last century is Bilguers, Surgeon General to the Prussian Army under the great Frederick, who in 1762* published against amputation in general. He denied its necessity even when a limb was torn off by a cannon ball and the parts were hanging. With these views he permitted no amputations in the Prussian Army. The exposition of his success is that, having at one time 6618 wounded patients in hospital, 5557 were perfectly cured, 195 almost restored, 213 remained incapable of either military or civil labor, and 653 died. The 195 and 213 had their bones broken, that is 408, and of the 653 deaths, 408 were from fractured bones. There stand 408 saved without amputation, and 408 deaths also without it. He then says that if we compare the number saved without amputation, with the almost total loss of patients after amputation (only one or two escaping) out of a prodigious number operated on in the beginning of the war, we may safely conclude that the 408 saved would have been victims to the operation. Exceptions are taken to this conclusion by Mr. Guthrie, because Bilguer makes no account of the wounded who died upon the field of battle for the want of amputation. There is, however, such an immense difference between only one or two saved in the beginning of the war, and 408 saved under a new regulation, that if Bilguer speaks candidly and correctly the assertion is of great weight.

About the middle of the past century, (1756) the French Academy of Surgery made this subject a prize question, which was decided in favor of M. Faure, a military surgeon of experience. He adduced ten cases of experiment on delayed amputation, following the battle of Fontenoy in 1745, all successful, while his opponents brought forward only four cures, out of nine immediate amputations. Faure's eligible period for amputation

* See Guthrie on Gun-shot wounds.

was when the violence of the local inflammatory condition and the symptomatic fever had abated. He, however, permitted prompt amputation in some few cases, they being of the worst kind, and not admitting of any delay whatever. Faure informs us that of three hundred amputations upon the battle of Fontenoy, only thirty were successful.*

In 1792 this decision of the French Academy was reiterated by the Baron Percy in his *Manuel du Chirurgien d'Armée*. The celebrated John Hunter, says on the subject,† after excepting cases where there is danger of death from hemorrhage, and the blood-vessel can not be reached without amputation, that it is much better to wait till the inflammation, and all its effects with those of irritation be gone. And this caution he applies with marked emphasis to the lower extremity. But few, he says, can support the loss of a lower extremity when they are in full health and vigor. "We know that a violent inflammation will in a few hours alter the healthy disposition, and give a turn to the constitution, especially if a considerable quantity of blood has been lost, which will most probably be the case when both accident and operation immediately succeed one another." He reprobates decidedly amputation on the field of battle,‡ the motive for which must of course be to avert the inflammation of the part which would follow its neglect; but he says, that if the patient would be able to sustain the inflammation, a consequence of the accident alone, it is more than probable he would not be able to support the amputation and its consequences too. If chances are so even for and against the patient when amputation is performed under ordinary circumstances in life, how adverse they become upon a field of battle." We must confess that we consider these pregnant precepts in regard to military surgery, but too applicable to the more pacific, but no less terrible series of injuries resulting from railroads, the actual extension of which at present in our country, and their still further extension for the future, urges imperiously a sound rule for the guidance of every practitioner.

* See Larrey, *Memoirs of Milit. Surg. &c.*, Balt. Edit. 1814. Vol. 2, p. 79.

† *A Treatise on the Blood &c.*, p. 537, Phila. Edit. 1840,

‡ *Ib.* p. 538.

In an army, additional ease in travelling, and especially in a hostile country may be a motive for prompt amputation, but this can have only a limited influence in civil practice, and therefore ceases to be an argument. Mr. Hunter proceeds to say that few did well who had their limbs removed on the field of battle, while a much greater proportion have recovered upon amputation after the inflammation was over. He is, however, less scrupulous about prompt amputation of the upper extremity, or in any case when the limb holds by only a small connexion. My own doubts, I admit, extend even to the latter, and I sincerely desire that a proper test should be applied by experiments of a suitable kind. It can do but little harm when a limb is dangling, and with the bones comminuted, to resect the limb at the point of connexion, and then simply to square off the protuberant bone. By this forbearance, which is scarcely an amputation, we avoid a new invasion of parts already in a suffering state.

The introduction in the year 1782, by Mr. Alanson, of the plan of treating amputated limbs by procuring an immediate union of the flap with the stump, may be considered as giving the strongest impulse to the idea of prompt amputation after injury; it is said to have diminished considerably the mortality when compared with that of the preceding forty years. This is, however, a pure question of comparative treatment of amputation, in which the English and the French schools are still opposed. The intelligence and ardor of the latter do not admit of a doubt that they are governed in their own practice by the results or the convictions of experience, and not by a simple routine as is alleged by their insular Neighbors. But this question does not reach the fundamental one of the relative superiority of a prompt, or of a tardy, or of a delayed or remote operation, the great one for the present stage of civil surgery.

The instructed reader need scarcely be informed that English surgery has run exclusively into the practice of prompt amputation after an accident likely to produce final loss of limb; that the celebrated Baron Larrey has used his high influence in producing a similar practice in France; and that these two sources of authority have established the principle in American surgery. The opinions of our army surgeons in the war of

1812 all went that way, so far as we can learn, through the unfortunately too limited publications on that subject; and we presume that these opinions have been reproduced in the late Mexican war, though unhappily there are so few means of ascertaining the case. Notwithstanding this, we are yet constantly admonished by the frequency of death after immediate amputation, that if the practice be a sound one, it is at least very unsatisfactory in its general results.

Mr. Guthrie* makes what he considers a triumphant statement in favor of his own views for immediate amputation; to-wit: in 163 amputations of the upper extremities, five only died, the rest were cured or convalescent; of the lower extremities, 128 amputations, only nineteen deaths, the rest cured and convalescent. His average of success was, in the case of the upper extremities, one death to twelve recoveries, and in the case of the lower extremities, one death to three recoveries. In the delayed amputations in the British Hospitals for the last six months of the year 1813, one hundred and sixteen persons out of 296 died in the case of the upper extremities; and in the case of the lower extremities 149 out of 255, a loss of more than a third in one category, and of much above one-half in the other. By this it appears that nearly one-half of the wounded are lost in the delayed amputations, while not more than a twelfth are lost on the field of battle.

Mr. Guthrie presents a remarkable statement of the mortality attending amputations between the fourth and the eighteenth day, mostly of the thigh. Out of forty-six, forty died. One who has seen amputations at this period of gun-shot wounds, will not forget the horrific yells of the sufferer; and we must confess some surprise at the persistence of a surgeon who would progress through such a scene. His confidence must have been strong in the accuracy of his principles, and his solace is to be found in the statement following, that an equal number, not so badly wounded, but not operated on, also died. This occurred in a group of one hundred and fifty French soldiers, captured at the battle of Salamanca.

* On gun-shot wounds, p. 42. London, 1815.

† Loc cit. p. 59.

Mr. Hennen* is so firmly of the opinion above, that he considers it almost libellous to impute any other practice to English surgeons. The fact of its propriety is, he says, as firmly established as any in surgery, and that there is not one point where opinions have varied so little among English practitioners from Wiseman downwards. The statistics of Mr. Guthrie and the axiom of Mr. Hennen, have thus a strong contrast with the celebrated Prussian surgeon Bilguers, and with the deeply reflective mind of John Hunter. It is said that the Indians of the Rocky Mountains consider a few perforations with rifle balls or penetrations with arrows, as not a very serious matter; that they suffer comparatively but little inconvenience from such accidents. If vital parts are not struck they do not lay up, but let these missiles drop out pretty much as they can. All of which is stated to be due to the singular salubrity of the air. The air of a field of battle appears to have a similar protective influence upon the constitution of the British soldier, or else there are some qualifications in the condition of things which statistical tables fail to represent. We can scarcely doubt the sincerity of Mr. Guthrie's views, whatever may be the striking character of his reports. He certainly had great opportunities for experience when war was conducted on so extensive a scale. But whatever may be his convictions in regard to early amputation, he is decided in allowing the first moments of agitation to pass before the operation is performed. He admits a period of from one to six or eight hours in different individuals, but considers that from one to three hours will, in most cases, be sufficient.†

The great battle of Waterloo, fought on the 16th and 18th of June, 1814, left two thousand killed in the British lines, and eight thousand wounded; the number of amputations amounted to nearly five hundred, in more than one-third of whom the operations had been prompt. We are informed by a careful observer, who made his report on the state of the British Hospitals‡ in Belgium at the time, that the mortality among those where am-

* Observations, &c., on Military Surgery. Edinburgh, 1818, pp. 45, et seq.

† Loc. cit., p. 52.

‡ John Thompson, Regius Professor, &c. Edinburgh, 1816.

putation was not at all performed, and among those where it had been postponed, was so much in excess over the cases of mortality after the cases of prompt amputation, that many regrets existed among the army surgeons that primary amputations had not been more frequently performed. This axiom then of British practice, established on the most memorable occasion of modern times, has met with but little to disturb its ascendancy since, and may now, therefore, be viewed as the dominant doctrine of the profession there.

In a recent lecture by Mr. Guthrie,* his opinions previously expressed on the result of his Peninsular service, are reiterated in substance as follows, to-wit: Immediate resection when the limb is in a hopeless state. The exception being when the patient is so prostrated as to render it evidently hazardous at once to his life. A delay of from five to eight hours and the use of stimulants are then recommended. He considers amputations done within the first twenty hours, over such as are done after several days or weeks, so superior as to admit no longer of dispute. He appears, however, to omit the question whether amputations at any period have an advantage over no amputations at all. He admits that amputations below the shoulder joint downwards, and below the knee downwards, may almost always be done with safety, but the sooner the more sure. Amputations any where above the middle of the thigh have always considerable danger. The latter being, then, the really turning point of the enquiry, the question should first of all be settled, whether immediate amputation, delayed amputation, or no amputation at all of this part, be better; and as immediate or delayed amputation in the two other cases do not differ materially in their results, so incidental circumstances may direct the surgeon. But it may be doubted always, I say, whether the immediate repetition to the limb of a severe injury by amputation is likely to be so balmy, as the admission of a fair interval of time. I consider it highly inconclusive to group amputations by the limb instead of by the region of the limb, and still more so to speak of all sorts of amputations in a sum, without any analysis.

* See American Medical Journal, Oct. 1852, p. 530, from Lancet, May 1, 1852.

The surgeon most influential in obtaining the present professional conviction in favor of immediate amputation after injuries requiring the resection of the limb, is unquestionably the celebrated Baron Larrey.* His surgical life began in 1789, and was continued with great activity for the next twenty-six years, when the downfall of the Emperor Napoleon composed the disturbed state of Europe. In this long service he was the constant attendant of his celebrated master, and present at all his great battles as Surgeon-in-Chief. His amputations were sometimes fifty or sixty a day, and, on one occasion, amounted to two hundred. Seeing for himself to such an amazing extent, and receiving the most authentic reports from all quarters, it would be difficult to find elsewhere such an amount of information. It would appear that under his observation more than three-fourths have recovered, which he ascribes to a more correct appreciation of the time for operating, to more methodical dressing, and to a more simple and less painful process than in preceding times. His rule is, that when a limb is so shattered that it cannot be saved, amputation should be done in the first twenty-four hours.†

Immediate amputation is, however, far from being the universal doctrine of the French schools. The Baron Percy, as previously remarked, disallowed it in his manual for army surgeons, published, in the year 1792, but understood to have been well received at a comparatively recent date. And Blandin, so late as 1829,‡ leaves us with the same conclusions in regard to his sentiments.

The American surgeons, in the war of 1812, followed to a large extent the prevailing French and English practice of that period; among them we may mention Dr. Mann; yet he states that after the battle of Little York and Fort George, a less number survived primitive than consecutive amputation. Three or four, it appears, died immediately after the operation, whereas there was not a single case of death during the campaign (1813) occasioned by consecutive amputation § We regret that he has not furnished us with the results of more than thirty amputa-

* See *Memoirs of Milit. Surg.*, passim. Balt. Ed. 1814. Translation by R. W. Hall, M. D.

† Loc. cit. p. 79.

‡ See *Dict. de Med. et de Chirurg. Prat. Art. Amputation.*

§ *Medical Sketches*, p. 213.

tions executed after the battle of the 11th of September, 1814, on Lake Champlain, rendered more memorable by the naval victory of Commodore McDonough. Dr. Amasa Trowbridge,* also an experienced surgeon of that time, and still alive, has given his testimony in favor of immediate amputation when there is no prospect of the ultimate restoration of the limb.†

In a valuable communication under date of April 30, 1851, from Dr. J. B. Whitridge, now of Charleston, S. C., and one of the U. S. Army surgeons of the war of 1812, he has furnished me with his views generally on the subject of amputation. Among other remarks he says: "According to my observations and experience amputation should always be performed as soon as possible after the accident or wound has taken place, which creates the necessity of the operation." He enjoys the reputation of a highly skilful and successful surgeon.

In the Naval fight on Lake Erie, September 10th, 1813, Dr. Usher Parsons,‡ the fleet surgeon, adopted the same plan of immediate amputation. The American squadron contained about six hundred, all told. The flag ship, the *Lawrence*, under Commodore Perry, had mustered in the morning one hundred men fit for duty. The action lasted three hours, and left at 3 o'clock P. M., twenty-one dead and sixty-three wounded, only sixteen unhurt. The whole number of wounded in the squadron

• This gentleman, though now at an advanced age, exhibits an unflinching energy in the exercise of his profession. His residence being in Watertown, in the northern part of the State of New York, he has enjoyed for nearly half a century a most prominent reputation as an operator. In recent communications from him, he reports ninety amputations of the thigh in private practice since 1809. Of the first thirty-five, only one died immediately after the operation; the remainder recovered from the operation, and continued to live for a well marked time afterwards. His report in detail was published in the *Boston Medical and Surgical Journal*. He lately performed his eighteenth operation (lithotomy) for stone in the bladder, this case terminating, as all the previous ones, in success. Of these, three were instances of foreign body in the bladder, one being a slate-pencil two inches long, one a piece of willow stick one and a half inches long, and one a bit of sealing wax two inches long and three-fourths of an inch in circumference. In thirteen cases of tracheotomy for foreign bodies, twelve were successful.

† See *Boston Med. and Surg. Journ.*, 1838.

‡ See *New England Journal of Med. and Surg.*, Oct. 1818, p. 313.

was ninety-six, of these, only three died; one from compound fracture of the shoulder, in which the bones were in part carried away, one from mortification of the lower extremity, and a third from fracture of the skull. The moral influence of victory was strongly illustrated in this engagement. It is known that the flag ship struck her colors; medical aid, the Doctor tells us, was then rejected, and the cry at once was, "sink the ship, let us all sink together." The translation of the Commodore to the Niagara, and the bringing of that ship into action, changed the fortune of the day, and shouts of victory immediately ascended. Its influence was seen in the remarkably few deaths of the wounded. Dr. Mann says that the same happy consequences attended the victory on Lake Champlain. The prodigious and glorious successes of the British arms in the Peninsular campaigns may account for many of the recoveries there also.

APPENDIX.

The following tabular statements on this subject may be presented with some advantage. In the Pennsylvania Hospital it appears from the report of Dr. George W. Norris, one of the surgeons,* that there had been fifty-six amputations from January 1, 1831, to January 1, 1838, a period of seven years, under the following circumstances:

Pennsylvania Hospital.

	Aggregate Amputations.			Accidental Amputations, or prompt.			Amputation delayed or from disease.			Total.
		Died.	Recovered.		Died.	Recovered.		Died.	Recovered.	
Thigh . . .	XIII.	6	7	VI.	4	2	VII.	2	5	13
Leg . . .	XVI.	9	7	IV.	1	3	XII.	8	4	16
Foot . . .	IV.	1	3	I.	1		III.†		3	4
Shoulder Joint .	II.	2		I.	1		I.	1		2
Arm . . .	VI.	2	4	IV.	2		II.		2	6
Fore arm . . .	XIII.	2	11	VIII.	2†	6	V.		5	13
Hand . . .	II.		2				II.		2	2
		22	34		11	11		11	21	56

*See Amer. Jour. Med. Sci. vol. 22, p. 356.

† Dr. Norris has not stated whether these were after prompt or delayed amputation.

‡ Two on same patient.

*Pennsylvania Hospital from Jan. 1, 1838, to Jan. 1, 1840.**

	Aggregate.	Died.	Recovered.	Prompt.	Died.	Recovered.	Delayed.	Died.	Recovered.	Total.
Thigh . . .	IV.		4				IV.		4	4
Leg . . .	X.		10	VII.		7	III.		3	10
Foot, partial . . .	I.	1		I.	1					1
Arm . . .	VI.		6	III.		3	III.		3	6
Fore arm . . .	III.		3	I.		1	II.		2	3
		1	23		1	11			12	24

In regard to the Massachusetts General Hospital, it appears from the Report,* including the amputations from January 1822, to January 1, 1850, that the aggregate had been one hundred and forty-six on one hundred and forty-one patients, thirty-two of which had died :

85 in consequence of disease, of whom 10 died, i. e. 1 in $8\frac{1}{2}$ cases.
 56 " injury, " 22 " 1 in 3 "

I have condensed the report into the following table :

	Aggregate.	Died.	Recovered.	Prompt Amputation.	Died.	Recovered.	Delayed Amputation.	Died.	Recovered.	Total.
Thigh . . .	LXIX.	19	50	XIV.	7	7	LV.	13	43	69
Leg . . .	L.	10	40	XIII.	3	10	XXXII	6	31	50
Arm . . .	XI.	1	10	III.	1	2	IX.		9	11
Fore arm . . .	XI.	2	9	V.	1	4	VI.		6	11
		32	109		12	23		19	87	141

* See Amer. Journ. Med. So., vol. 26, p. 36. Paper by Dr. George W. Norris.

† By George Hayward, M. D., one of the surgeons. See Boston Med. and Sur. Journal, Oct., 1850.

*New York Hospital.**

	Aggregate Amputations.	Died.	Recovered.	Accidental Amputations, or prompt.	Died.	Recovered.	Amputation delayed, or from disease.	Died.	Recovered.	Total.
Thigh	XXXIV.	11	23	IX.	3	6	XXV.	8	17	34
Knee Joint	I.	1					I.	1		1
Leg	XXIV.	7	17	XV.	6	9	IX.	1	8	24
Shoulder Joint . .	IX.	4	5	VII.	4	3	II.		2	9
Arm	XI.			VIII.		8	III.		3	11
Fore arm	XI.	3	8	VI.	1	5	V.	2	3	11
		26	53		14	31		12	33	90

It is to be regretted, I say, that we have not more statistics of the result of amputations in our Mexican army. Immediate amputation appears to have been the favored practice. "No rule was more universally acted upon by the surgeons of our army in Mexico, from the battle of Palo Alto to the treaty of peace, than the one laid down by Hennen, with as little delay as possible.†

As this was so uniform a proceeding, the opposite had but a very imperfect trial, and the statistics of success not being given by Dr. Porter in his paper, there are no means of comparing with the results in other places. We hope that some gentleman of the army will devote himself to the collecting of facts on this subject while they are still so accessible.

We are informed by Dr. Richard McSherry, of the U. S. Navy,‡ that he did not see in his own practice, or in that of any other surgeon, a single case of cure after severe injury of the thigh or knee, either with or without amputation. This was in an attendance of eight months in the hospitals of the city of Mexico, after the fighting was over, and it applies to wounds fracturing the os femoris. All other wounds seemed to do as well in that city as in other

* See American Journal Med. Sc., July, 1848. Statistics, &c., of Amputations from Jan. 1, 1839, to Jan. 1, 1848.

† Medical and Surgical Notices, &c., by John B. Porter, M. D., surgeon U. S. Army, in American Journal of the Medical Sciences for July, 1852.

‡ See Amer. Jour. Med. Sc., July 1849.

climates, and he presumes that not one case in twenty was fatal after amputation of the arm.

*Report of Prof. RESTELLI, of the Sardinian Army.**

	Aggregate.	Died.	Recovered.	Prompt Amputations.	Died.	Recovered.	Delayed.	Died.	Recovered.	Total.
Hip Joint . . .	I.		1	I.						1
Thigh . . .	XVIII.	10	8	XI.	4	7	VII.	6	1	18
Leg . . .	IV.	1	2				I.	1		4
Shoulder Joint . . .	III.	1	2	I.		1	II.	1	1	3
Arm . . .	XVII.	6	11	X.	1	9	VII.	5	2	17
Fore arm . . .	III.	1	2				III.	1	2	3
		19	26		5	17		14	6	46

The conclusion drawn from the above, by Prof. Restelli is, that prompt amputations are more felicitous in their results, than delayed.

In the African campaigns of the French in 1837, '38, and '39, according to the report of Dr. Guyon, of sixty-three amputations of all the limbs, including six at the shoulder-joint, seventeen patients died and forty-six recovered, and the results were about the same in prompt and in tardy operations. The report is, however, very unsatisfactory, from the want of details in regard to precise time, and to deaths in relation to the places of amputation. For, by putting into one sum all the deaths, it confounds things widely separated in other respects,† and leaves us without guide, at least so far as the objects of the present observations are concerned.

The report of M. Malgaigne in regard to the results of amputation in the Paris hospitals for traumatic lesions, from 1836 to 1846, is a remarkable document.‡ For example in

* See British and Foreign Med. Chirug. Review. Oct., 1850.

† See Brit. and For. Medical Review, vol. xii. 1841. From *Gazette Medicale*.

‡ See Amer. Journ. Med. Sc. New Series, Oct., 1848, p. 468. From *Med. Times*.

Thigh,	44 amputations.	34 deaths,	over 3 in 4
Leg,	67 "	42 "	nearly 2 in 3
Foot,	8 "	5 "	over 1 in 2
Shoulder,	7 "	7 "	Total fatality.
Arm,	29 "	17 "	nearly 2 in 3
Fore arm,	10 "	2 "	1 in 5

The events of 1848, when a large number of wounded insurgents were admitted into the St. Louis Hospital, appear to have left M. Malgaigne and his colleague, M. Gosselin, in the same discouragement on the subject of amputations being performed at all; and it seems that he has reached the conclusion that the opinion of military surgeons on the advantage of primary amputations, did not rest upon a very solid basis, and that in the attempt to preserve the limbs of the wounded, the surgeon did not place them in greater hazard than in amputation. It thus happens that after half a century or more of established opinion on this great point, it is now in a state of vacillation, and may possibly return to where Bilguer left it in 1762. If there be any thing intermediate to these two extremes, in its application to the present state of civil surgery in regard to railroad accidents, &c., it is, I repeat, to leave the limb, when it is hopelessly injured, without any other resection, than that of cutting off the dangling part, squaring with a saw the end of the bone, and trusting the rest to nature. In our present limited experience on this subject, I can not say that the proceeding is absolutely recommended; but there are arguments enough to invite a fair trial, and especially in compound fractures of the thigh and of the leg, where danger is so imminent, either in amputating or in trusting to nature entirely.

In conclusion, we would recommend that in the tabular form of hospital reports on the subject of amputation, the time should be regularly marked, whether it be under or above four days. Four days is probably the extremity of time for primary or prompt amputation; after that time nothing should be done for fourteen or twenty days more. Then the time for an amputation ranges for the remainder of the disease. Also, no sound reasoning can be founded upon the aggregation into one sum of all amputations, inasmuch as they vary so much in fatality, de-

pending upon the limb. The thigh, the shoulder and the leg, being the most fatal, should each have its respective consideration. The European reports that I have seen are very defective in these respects, and many of them, which would otherwise have been of value to the American reader, are, for the want of such information, passed over on the present occasion. It would be a great acquisition to the profession generally, if some one there near the seat of information, would go to work and reconstruct all of their statistical tables upon a more exact plan. To say that a patient died after amputation, is to say only one half, there may have been circumstances entirely independent of the original injury and of the amputation which led to death. These circumstances may have been of so serious a character as to destroy, of themselves, the patient; as for example—internal injuries besides external; or internal fatal diseases so far advanced that nothing could cure them, as tubercles of the lungs, brought on by caries of bones or diseases of joints. The *post hoc* is always a different consideration from the *propter hoc*, and in no one affair more than in amputations as a class of surgical affections. Our own general conclusion from what we have seen and learned would be, that amputations in the length of the bones of the upper extremity, anywhere below the shoulder joint, may be performed indiscriminately, either at once or subsequently. Perforations by balls through the elbow and wrist, in their ulterior consequences, involve great hazard to the life of the patient; but some patients recover. It is, perhaps, therefore, better to delay amputation, as there is no immediate danger for the most part. Compound fracture of the thigh is imminently dangerous, either with or without regular amputation. An intermediate plan has therefore been suggested, which, for similar reasons, may be applicable to the leg also, to-wit: the excision of the limb through the ray of attachment, and the simple squaring off of the ragged end of the bone.

Mortality of Philadelphia for October, November, and December, 1852, arranged from the Record kept at the Health Office.
By WILSON JEWELL, M. D.

The returns of deaths made to the Health Office, for the fourth quarter of the year 1852, embrace a period of ninety-one days, or thirteen weeks, beginning with the 3d of October and ending with January 1st, 1853.

The number of deaths from all causes, reported during this period, have been 1158 of children under twenty years of age, and 1930 adults; in all, 2088. This shows a falling off of 635, or 23½ per cent. of the mean proportion of deaths for the three previous quarters of the year.

By deducting the Still-Born, the deaths from External Causes, Debility and Old Age, there are left 1759 deaths from actual disease.

The deaths among females were 922; males 1166; showing an excess of 244 of the latter sex.

During the quarter, estimating the population at 409,000, there has been about 1 death to every 196 inhabitants, equal to 23 deaths per day.

Of the whole number of deaths recorded, 930, nearly 47 per cent. were under five years of age; and 129, or 6 per cent. were over seventy years of age.

The deaths from Fevers were 282; exceeding those in the 1st and 2d quarter, and twice as many as those recorded for the 3d quarter of the year. Three fifths of the deaths from Fevers, or 166, were from Scarlatina.

Consumption of the Lungs constitute a majority of all the deaths from diseases of the Organs of Respiration; 271 out of 466, ascribed to these organs, are charged directly to Consumption; whereas, if we include those from "Abscess, Hemorrhage, and Gangrene of the Lungs," with "Disease of Lungs" and "Hectic Fever," we shall still further swell the deaths from this destroying malady.

Those diseases from which the greatest number of deaths have occurred during the quarter, are, Consumption of the Lungs, 271; Scarlet Fever, 166; Convulsions, 88; Inflammation of the Lungs, 86; Croup, 71; Dysentery, 55; Marasmus, 55; Typhus Fever, 53; amounting in all to 845, and constituting very

nearly the half of all the deaths recorded from actual disease. Of these, 388 or 45 per ct. were in children under 10 years of age.

TABLE No. I.
Deaths for the Fourth Quarter of 1852, classified.

	October.	November.	December.	MALE.			FEMALE.			Total.
				O.	N.	D.	O.	N.	D.	
1. <i>Endemic and Contagious Diseases.</i>										
<i>Zymotic or Epidemic</i>	148	163	195	84	90	97	64	73	98	506
2. <i>Uncertain or general seat. Sporadic diseases</i>	70	103	126	37	60	70	33	43	56	299
3. The Nervous System	94	87	133	59	54	85	35	33	48	314
4. Organs of Respiration	122	157	187	65	88	92	57	69	95	466
5. " Circulation	17	16	11	9	7	6	8	9	5	44
6. The Digestive Organs	36	43	49	23	22	26	13	21	23	128
7. The Urinary Organs	2	3	1	2	3	1				6
8. The Organs of Generation	1	3	5	1			3	5		9
9. " Locomotion	3	3	5	2	1	2	1	2	3	11
10. The Integumentary System	1	2	1	1	1	1	1			4
11. Old Age	9	8	15	4	5	1	5	3	14	32
12. External Causes	22	23	25	16	13	19	6	10	6	70
Still Born	33	41	56	20	25	35	13	16	21	130
Unknown	22	25	22	11	17	11	11	8	11	69
	580	677	831	334	386	446	246	291	385	2088

TABLE No. II.
1. Endemic and Contagious Diseases—Zymotic or Epidemic.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Aphthæ	1	1	2															2
Cholera Infantum	5	4	4	2	3													9
" Morbus	16	8							8	5	3	2	2	1	1			24
Croup	34	37	12	15	36	7	1											71
Diarrhœa	11	17	8	7	2				3			2	4		2			28
Dysentery	36	19	5	11	11	4		3	6	5	5	2	2	1				55
Erysipelas	6	4	4	1					3	3		1	1					10
Fever	2	5	1					2		1	1	1				1		7
" Bilious	4				1				3									4
" Congestive	2	2			3								1					4
" Intermittent	1					1												1
" Remittent	2	3	1		1	1			1	1								5
" Scarlet	90	76	16	21	76	49	2	1	1									166
" Synocha	1								1									1
" Typhus	22	31			2	1	1	5	17	6	6	10	5					53
" Typhoid	26	15	1	1	4	1	5	13	8	5	2			1				41
Hooping Cough	2	3	3		2													5
Influenza	1	2									1	1	1					3
Measles	2	1	2		1													3
Small Pox	7	6	4	2	5	1			1									13
Syphilis	1									1								1
	271	235	6	60	147	63	8	16	53	30	21	21	16	4	3	1		50

2. Uncertain or General Seat.—Sporadic Diseases.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abscess Psoas . . .		1								1								1
Angina . . .		3	1		1			1										3
Cachexia . . .	1	2	1															3
Cancer . . .	1	4								1	1	1	1					5
“ Breast . . .		1													1			1
“ Throat . . .									1									1
Cyanosis . . .	4	2	4	1	1													6
Debility . . .	66	31	38	1	1				2	5	11	6	6	16	9	2		97
Disease of Mesen. Glands		1	1															1
Disease of Throat . . .	1												1					1
Dropsy . . .	23	14		3	5	1	1	2	2	7	6	2	6	2				37
Fungus Hematodes . . .	1											1						1
Gangrene . . .	1	3			1							1						4
Gout in Stomach . . .	1												1			1		1
Hemorrhage . . .	3	5	2						2	2	1			1				8
Inanition . . .	8	6	11							1			1		1			14
Inflammation . . .	1	4		2						1		1			1			5
“ of Neck . . .	1		1															1
Malformation . . .	5	1	5				1											6
Marasmus . . .	29	26	27	12	8	1	2	1	1	1				1	1			55
Mortification . . .		1												1				1
Ptyalism . . .		1								1								1
Scirrhus . . .		2									1							2
Scrofula . . .	17	9	3	3	4	2	7	3			2	1	1					26
Tabes Mesenterica . . .	3	9	3	1	5		1		1	1								12
Tumours . . .		2									1			1				2
“ of Neck . . .		1	1															1
Ulceration of Throat . . .		3	1	1	1													3
	167	132	99	24	27	4	12	7	9	22	24	13	18	25	13	2		299

3. Of the Nervous System.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abscess of Brain . . .	1							1										1
Apoplexy . . .	16	8				1			1	2	4	4	7	5				24
Asthma Thymic . . .	1		1															1
Cerebral Disease . . .	1											1						1
“ Fever . . .	1			1														1
Compression of Brain . . .	1	1							1		1							2
Concussion . . .	1									1								1
Congestion . . .	12	7	5	1	2	2			2	2			4	1				19
Convulsions . . .	57	31	51	16	15	2	1	1		1	1							88
Cramp . . .	1			1														1
Disease of Brain . . .	14	9	9	2	3	1	3		1	3				1				23
Dropsy . . .	19	13	13	8	6	3	1		1									32
Effusion . . .	10	10	2	2	6	1		1		2	3	3						20
Epilepsy . . .	3	3																6
Hemorrhage from Ear . . .		1	1						2		1	1		1				1
Inflammation of Brain . . .	27	18	9	5	15	3	1	3	5	3	1							45
Injury of Brain . . .	1														1			1
Mania . . .		2							1	1								2
“ a potu . . .	12	3								6	4	4		1				15
Neuralgia . . .	1												1					1
Palsy . . .	9	8	1			1			2		1	2	4	4	2			17
Softening of Brain . . .	7	1			1				1	2	3	1						8
Tetanus . . .	2	1										1						3
Trismus . . .	1		1															1

4. *Organs of Respiration.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abscess of Lungs . . .	3	1						2		1	1							4
Asthma . . .	1	1		1										1				2
Congestion of Lungs . .	4	9	6	1	1	1	1		1			2						13
Consumption " . . .	134	137	5	7	3	6	4	19	80	57	39	33	11	7				271
" Laryngeal . . .		1										1						1
Disease of Lungs . . .	4	1	1			1		1	1		1							5
" Chest . . .	3	1	1	1	1							1						4
Dropsy of Chest . . .	3	2		2						1	1		1					5
Effusion " . . .	2	1		1		1								1				3
" Lungs . . .	1	1										1			1			2
Fever, Hectic . . .	1				1													1
Gangrene of Lungs . . .	1												1					1
Hemorrhage " . . .	4	3							3	1	2	1						7
Inflammation of Bronchiæ	23	18	24	3	4	3	1		2	2			1	1				41
" Chest . . .	4		1	1	2													4
" Larynx . . .	3	4	1		4	1			1									7
" Lungs . . .	50	36	17	12	10	2	2	3	16	3	8	5	5	1	2			86
" Pleura . . .		2				1			1									2
" Throat . . .	1	1		1	1													2
Tuberculosis . . .	3	2	1	1					3									5
	245	122	57	30	26	16	9	26	107	66	51	43	21	11	3			466

5. *Organs of Circulation.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Anæmia . . .	1	1	1							1								2
Angina Pectoris . . .		1																1
Aneurism of Aorta . . .	2										2			1				2
Disease of Heart . . .	15	13	3		1	3		2	3	1	5	4	4	2				28
Dropsy " . . .	1								1									1
Effusion " . . .	1													1				1
Enlargement of Heart . .		2						1		1								2
Inflammation " . . .	1	4		1			1		1	1		1						5
Malformation " . . .	1	1	1	1														2
	22	22	5	2	1	3	1	3	5	4	7	5	4	4				44

6. Digestive Organs.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Abdominal Dropsy . . .	7	3							1		2	3	2					10
Abscess of Liver . . .	2	1							1		1							3
“ of Stomach . . .	1				1							1						2
Cancer of “ . . .	1	1								1	1							2
Cancrum Oris . . .	3	4	2		5													7
Cirrhosis of Liver . . .		1							1									1
Disease of Bowels . . .	1	3	3											1				4
“ Liver . . .	3	3						1	1	2	1			1				6
“ Stomach . . .		2							1					1				2
Dyspepsia . . .	1											1						1
Hemorrhage of Bowels . . .	2	1					1		2									3
“ Stomach . . .	1	2	1							1			1					3
Hernia, strangulated . . .		1										1						1
Inflam. of Liver . . .	3	3							1	1	1	1	2					6
“ Peritoneum . . .	7	6	1		1				5	4			1		1			13
“ Pharynx . . .	1		1															1
“ Stomach . . .		2											1					2
Inflam. Stomach & Bowels . . .	32	16	8	2	5	5	1	2	4	7	6	5	1	2				48
Jaundice . . .	2	2	2							1			1					4
Obstruction of Bowels . . .	1	1										1						2
Perforation of Bowels . . .		1									1							1
Stricture of Colon . . .	1												1					1
Teething . . .	1	1	1	1														2
Ulceration of Bowels . . .	1	2							2				1					3
Worms . . .		1			1													1
	71	57	19	3	12	6	2	3	18	20	13	13	11	7	1			128

7. The Urinary Organs.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Disease of Kidneys . . .	2								1	1								2
“ “ and Bladder . . .	1													1				1
Inflam. of Bladder . . .	1														1			1
“ of Kidneys . . .	1					1												1
Urinary Calculus . . .	1												1					1
	6					1			1	1			1	1	1			6

8. *Organs of Generation.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Enlargement Prostate Gland	1									1								1
Puerperal Fever . .		3							2	1								3
" Inflam. . .		1								1								1
Hemorrhage from Uterus		1							1									1
Inflammation "		1								1								1
Cancer of Uterus . .		1									1							1
Phlegmasia Dolens . .		1							1									1
	1	8							4	4	1							9

9. *Organs of Locomotion.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Caries	1	1									1		1					2
Hip Disease	1	1			1				1									2
Disease of Spine		1								1								1
" Leg	1							1										1
Cancer "		1								1								1
Fracture of Spine	1								1									1
Atrophy Spinal Marrow	1											1						1
Rheumatism		1												1				1
Spina Bifida		1	1															1
	5	6	1		1			1	2	2	1	1	1	1				11

10. *The Integumentary System.*

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Purpura Hemorrhagica	3	1	1	1	1				1									4

11. *Old Age.*

Old Age	10	22											3	9	12	6	2	32
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12. From External Causes.

	Male.	Female.	Under 1 yr.	1 to 2.	2 to 5.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 to 90.	90 to 100.	100 to 110.	Total.
Asphyxia	5	5	8	2														10
Burns and Scalds	4	6	1	3	3	2				1								10
Casualties	18	4	5		1	1			4	3	3	5						22
Drowned	9	2				1	1	2			1	1						11
Intemperance	5	2							1	2	3	1						7
Suffocation	2	3	2							1	2		2					5
Suicide	3																	3
Violence	1						1											1
Exposure	1									1								1
	48	22	16	5	4	4	1	3	7	12	9	7	2					70

Unknown	39	30	20	4	3	1	1	4	10	6	7	6	4			3		69
Still Born	80	50	130															130

TABLE NO. 3.

Deaths for the Fourth quarter, at fifteen distinct periods of life.

Under 1 year,	. . . . .	374
1 to 2 . . . . .	. . . . .	165
2 to 5 . . . . .	. . . . .	270
5 to 10 . . . . .	. . . . .	112
10 to 15 . . . . .	. . . . .	41
15 to 20 . . . . .	. . . . .	66
20 to 30 . . . . .	. . . . .	229
30 to 40 . . . . .	. . . . .	194
40 to 50 . . . . .	. . . . .	152
50 to 60 . . . . .	. . . . .	137
60 to 70 . . . . .	. . . . .	99
70 to 80 . . . . .	. . . . .	79
80 to 90 . . . . .	. . . . .	36
90 to 100 . . . . .	. . . . .	12
100 to 110 . . . . .	. . . . .	2
		<hr/>
		1958
Still Born . . . . .	. . . . .	130
		<hr/>
Total,		2088

Included in the above Tables, were 193 from the Blockley Almshouse; 171 people of color, and 18 from the country; as follows:

	Almshouse.	Blacks.	Country.
October,	42	48	9
November,	66	58	5
December,	85	65	4
	<hr/>	<hr/>	<hr/>
Total,	193	171	18

SUMMARY FOR THE WHOLE YEAR.

The quarterly tables presented in this Journal for the year 1852, exhibit, in those marked No. 1, the number of deaths, with their causes, for each month, grouped or classified in accordance with the system approved by the American Medical Association: They also furnish the sexes in which the deaths took place.

The tables marked No. 2, show in their classified relations, not only the number of deaths, but the names of the diseases causing death, as given in the certificates returned to the Board of Health. They are arranged under fifteen distinct periods of life.

The tables, No. 3, furnish the aggregate of deaths at fifteen distinct periods of life.

There are also appended, the deaths which took place during each quarterly period, at the Blockley Almshouse; the number of deaths among the colored population, as well as the number brought from the country to be interred in the city.

The following table exhibits the deaths for the year 1852, in each sex, under the several classes of disease:

	Male.	Female.	Total.
1. <i>Endemic and Contagious diseases.</i> } . . .	1398	1387	2785
Zymotic or Epidemic,			
2. <i>Uncertain or General seat.</i>			
Sporadic diseases,	698	575	1273
4. The Nervous System,	957	712	1669
3. Organs of Respiration,	1147	1025	2172
5. " " Circulation,	114	105	219
6. Digestive Organs,	313	314	627
7. Urinary Organs,	28	4	32
8. Generative Organs,	8	104	112
9. Locomotive Organs,	26	20	46
10. Integumentary System,	9	9	18
11. Old Age,	57	135	192
12. External Causes,	240	82	322
Still Born,	293	223	516
Unknown,	149	126	275
	5437	4821	10258

In accordance with these tables, the aggregate of deaths from all causes for the year was 10,258, an excess of 1387, or
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18 per cent. over those for 1851. This aggregate furnishes one death to every 39 8-10ths of a population of 409,000.

Included in the above total were 913 from the Blockley almshouse, 832 blacks and 108 from the country, in all 1853.

The highest number of deaths in any one month, occurred in January, amounting to 1037, making 33½ deaths per day. The lowest number was in October, viz. 580; equal to 18½ deaths per day. The mean number of deaths per day, throughout the year was 28.

Of the whole number of deaths, 5049, or 49 per cent., were among children under five years of age. Of this great excess of mortality in infancy, 2800, or 27½ per cent. occurred before the termination of the first year of life. In this calculation we have included the "still-born," which amounted to 516. How many of these were premature, or how many had reached the full period of gestation, we have no means of ascertaining. This information would be valuable in order to show the risks of life encountered during the eventful period of parturition.

Of the deaths from all causes, exclusive of still-born, 590, or 6 per cent., were beyond 70 years of age. Of these, 188 were over 80; 38 were over 90, and 7 were between 100 and 110 years of age.

The most prevalent diseases in the community, and the number of deaths therefrom during the year, have been as follows: Consumption of the Lungs, 1204; Dysentery, 558; Convulsions, 499; Inflammation of the Lungs, 444; Scarlet Fever, 433; Small Pox, 426; Marasmus, 354; Debility, 345; Cholera Infantum, 329; Inflammation of the Brain, 258; Dropsy of the Brain, 247; Inflammation of the Bronchiæ, 208; Croup, 208. In all, 5513, constituting a majority of the whole number of deaths recorded.

In the aggregate of deaths we find the preponderance on the side of the males. While those among females amounted to 4821, the male deaths were 5437, an excess of 616, or about 13 per cent., over the females.

Among the "Still-Born" the excess was 30 per cent. on the side of the males. From "External Causes," there were three

males to one female. While among the deaths from "Old Age" there were two females to one male.

The diseases under the head of Zymotic, have contributed a very large proportion towards making up the deaths for the year, viz. 2785, or $28\frac{1}{2}$ per cent. of the whole number. The Sporadic diseases caused about 13 per cent. The diseases of the Nervous System have contributed 1669, or 17 per cent. Those of the Organs of Respiration 2172, or nearly 22 per cent. These calculations do not include the "Still-Born, 516."

The deaths, specified in the record as Consumption of the Lungs, number 1204: this gives one out of every $8\frac{1}{2}$ deaths during the year, or nearly 12 per cent. There is an increase of mortality from this disease over the year 1851, of 35 per cent. The deaths from Consumption for 1852, to population, is as one to $90\frac{1}{2}$.

The following table presents a comparison between the diseases which have been most fatal, hence most prevalent, for five consecutive years:

	1848	1849	1850	1851	1852
Cholera Infantum,	454	582	505	397	329
Consumption of the Lungs,	965	939	907	881	1204
Congestion of the Brain,	85	91	97	130	120
Convulsions,	401	415	444	479	499
Croup,	177	130	143	180	208
Debility,	145	200	201	260	345
Diarrhœa,	122	225	208	157	156
Dropsy of the Brain,	220	237	283	245	247
Dysentery,	315	578	421	401	558
Scarlet Fever,	172	242	439	400	433
Inflammation of the Brain,	186	198	218	202	258
" " Bronchiæ,	172	169	191	175	208
" " Lungs,	265	273	352	352	444
Marasmus,	237	264	217	255	354
Old Age,	188	226	185	186	192
Small Pox,	100	152	40	216	426

CLINICAL REPORTS.

Pennsylvania College, Ninth below Locust street. Service of
Professor GILBERT.

Reported by W. H. GORRECHT, M. D.

Dec. 22d. George W. S——, (Case L.) *Varus of both feet*, exhibited, apparatus removed, and re-applied. The feet show a much less decided tendency to their abnormal position than at the last dressing.

Anna J. S——, (Case XLIX, *Operation for effects of Burn*), reported progressing as favorably as possible under the unfavorable influenza complication.

Dec. 29th. John P——, (Case XXVII,) *Tenotomy*.—The arm and hand are found nearly in a straight line, without any tendency to a return to the abnormal position. The splint is ordered to be entirely dispensed with, and the use of the fingers and wrist restored by passive motion. The wrist is found much enlarged in its antero-posterior diameter. This results from a change in the form of the carpal bones, the effect of the anterior muscular contraction, which withdrew them from their normal location, subjecting them to such alteration. As a consequence of this alteration in the configuration of the carpus, when restored to its proper situation, some deformity must exist, but which in such a youthful subject disappears by the progress of growth.

The case should be occasionally looked to, and if any tendency to the old deformity re-appears, the splint should be again resorted to.

CASE LIII. *Chronic Pharyngitis*.—Michael K——, aged 39. Marble polisher. (Was a soldier in the Mexican War.)

This patient complains of pain in the throat, which is dry, whilst he is quite hoarse. An elongation of the uvula which existed was snipped off by his previous attendant. Whilst in Mexico he had obstinate Diarrhœa, and has had Dyspepsia for a long time. On examination of the throat, chronic inflammation of the mucous membrane of the pharynx is found to exist, which inflammation as extended into the larynx.

Prof. Gilbert states that he has seen and treated very many cases of this kind, occurring in clergymen and theological students, and has always found that there is accompanying gastric disturbance; he therefore administers remedies addressed to the stomach, as, one-fourth of a grain of Nitrate of Silver, thrice daily for several months. This treatment is then replaced by Sulphate of Copper, Sulphate of Zinc, and Iodide of Potassium, successively, in alternating doses, after which the Nitrate of Silver is again resorted to. The patient is ordered :

R. Argenti nitrat. gr. x.

Mic. panis q. s.

M. ft. in pil. No. XL.

S. One thrice daily.

When the stomach has its proper tone restored, the throat will return to its normal state.

The diet should be farinaceous, with milk, and is to be taken in moderate quantities at regular periods.

Moderate exercise should be resorted to in good weather.

CASE LIV. Contusion of Right Shoulder.—Justus S —, aged one year. This patient was sent to us under the belief that the injury was a luxation of the humerus, but examination, notwithstanding considerable swelling exists, proves that the bones occupy their proper relative positions; whilst the inability to elevate the arm, results from severe contusion of the deltoid, which is painful on pressure. The following liniment was ordered to be rubbed twice daily upon the contused parts :

R. Linamenti Ammoniaë f3ij.

Tinct. Opii f3ss.

and a bandage applied to restrain motion of the arm.

Jan. 5th, 1853. The tumefaction has subsided and luxation is proved not to have existed.

CASE LV. Varicose Ulcer.—Michael N —, aged 48. This patient has an ulcer on the anterior part of right leg, above the ankle, of long standing, resulting from varicose veins in that limb.

In any case, so long as this condition of the veins, which are both enlarged in calibre and thickened in their coats, exists, no cure of the ulcer can be effected; and should we find, as we most frequently

do, that the elastic laced stocking fails to support the vascular walls, or to prevent their rupture, we must employ some method to prevent the return of blood through the superficial veins, and change its direction into a deeper channel. To do this, *caustic* has been applied to the principal venous trunk; the *ligature* has also been employed, but the best plan is to pass a pin beneath the principal vein, and then to apply a figure of eight ligature about its projecting extremities; the pressure thus produced on the sides of the tube shuts off entirely all communication of the lower with its upper portion, and the pin, if allowed to remain, will cut itself out, thus completely dividing the vessel; but the establishment of inflammation usually effects obliteration of veins, and this is sufficient. A needle was then passed beneath the internal Saphenous vein of the right side, just above the knee, by pinching up the skin and superficial fascia containing it, and introducing the instrument from before, backward, close to the posterior wall of the vessel. The ligature was then applied. Dressed with an adhesive strip.

5th. The needle still remains, the veins have much diminished in calibre, the ulcer is moist with pus, and the edges are cicatrizing.

8th. Needle removed to day, and the following application ordered for the ulcer:

R. Cretæ. ppt. ʒij.

Cerat. simp. ʒi.

M. ft. in ung.

S. As directed.

The ulcer is still improving, granulations are abundant, and cicatrization progressing. The varicose veins have disappeared entirely. In these cases the blood returns through the deep seated veins.

CASE LVI. *Result of lacerated wounds, with comminution of bones of foot.*—Jacob B——, aged 23, about five years since, had his left foot caught and crushed between two canal boats; there was bad compound fracture of the metatarsus, and extensive laceration of the soft parts. With great care, however, the foot was saved, but there has been a loss of much of the soft tissues in the sole, whilst the breadth of the foot is diminished. Since the period

of primary cure, some exfoliations of the metatarsal bones have occurred—two or three orifices now existing in the outer part of the plantar aspect of the foot, communicating with the metatarsus, which lies immediately beneath the integument. The foot, however, whose articulation with the leg is perfect, will doubtless become much more useful than any artificial limb could be, for by adapting to the sole an elastic air or other cushion, pressure upon the bones will be obviated, and thus repeated ulcerations prevented. Prof. Gilbert stated that this patient was treated originally by his friend Dr. Case, of Liverpool, Pa., whose efforts to save the foot have been eminently successful.

Jan. 5th, 1853. CASE LVII. Paralysis of right side of face.—This patient, a colored man, states that he had Mumps, and a resulting abscess was lanced, since which time his right eye has remained constantly open, and none of the muscles of that side of the face, which is perfectly flat, move at all, neither is there much feeling about it. The *portio dura*, (the nerve of motion of the face,) has evidently been divided in this operation, and hence the paralysis. Whilst no treatment will be available, no danger is to be apprehended from this condition of things.

CASE LVIII. Tumor of left Cheek. Eliza D—, aged 20. This enlargement in the substance of the left cheek was first noticed about four weeks ago, since which time it has gradually increased; it is quite moveable, having contracted no adhesions with the surrounding structures. On examining the teeth, two in the lower jaw, immediately opposite the tumor, were found decayed; believing that this tumor arose from inflammation at the roots of these teeth, resulting in the formation of pus, and an attempt at the establishment of a *sinus*, for its escape from the alveoli, the decayed fangs were extracted, and Tincture of Iodine painted over the surface of the enlargement. The patient is now brought forward, to show the diminution of the external swelling, both from the establishment of a proper outlet within, for the pus formed, and the absorption of the effused lymph as a result of the Iodine application. If the progress of this case had not been thus arrested, an opening for the discharge of the abscess would have been formed in the lower border of the cheek, and

this would have become fistulous, with continued discharge of pus from the diseased fangs and alveoli.

Contusion of Hip. Salone T—, (Case XLVIII.) In this case the bandages have been entirely removed, all tenderness of the joint has subsided, and the patient walks perfectly well, devoid of any lameness. The most important element in the treatment of all articular affections, viz., rest, in this case, by means of the immoveable dressing, has been the efficient means by which this successful result has been attained.

CASE LIX. *Tinnitus Aurium.* James R—, aged 35, states that about three years since he first noticed a constant noise in the left ear like the blowing off of steam, which has existed ever since, with more or less intensity. It was supposed to arise from a severe cold, which he had contracted at that time. Prof. Gilbert mentions an instance of the same symptom following concussion of the brain, in a case treated by him recently. It is probable that in this instance inflammation of the external ear has extended itself through the internal ear to the membranes at the base of the brain.

Creasote, as a counter-irritant, was painted freely over the mastoid process of the temporal bone, and Calomel, 10 grains, prescribed, to be followed in two hours by Magnesia, a drachm.

Jan. 8th. Not much relieved. (This patient works in a factory as a weaver, where there is a constantly aggravating noise around him.) Creasote re-applied, and another purge prescribed.

CASE LX.—*Dislocation of right thumb.* William A—, aged 26, presents himself with a dislocation of the right thumb into the palm at the metacarpo-phalangeal articulation, occurring eighteen days since, during which time two unsuccessful attempts have, been made for its reduction. The patient being seated, the clove hitch was applied to the first phalanx of the thumb, for extension, whilst the arm, semi-flexed, was grasped above the elbow, for counter-extension; the external lateral ligament of the affected joint was then divided by Hypodermatomy, and the proper forces steadily and perseveringly applied by means of the hands of assistants, without much effect. The *twisted rope* was then attached

to the clove-hitch, whilst the arm was secured by a folded sheet to a fixed point, and the forces re-applied with greater intensity, when, but little benefit following, the internal lateral ligament was divided, and then the thumb was brought very nearly, but not altogether, into its proper position.

At this time it was deemed advisable to make no further efforts at the reduction. A splint was applied and the cold water dressing ordered.

CASE LXI.—*Convergent Strabismus* of right eye, in Elizabeth B——, aged 20, was operated upon, with perfect relief resulting. The deformity in this case was unusually great. Section of the tendon of the internal rectus, with the intermuscular fascia above and below it, was sufficient without interfering with any of the adjoining tendons.

The success of this operation depends upon the complete division of the tendon. Sometimes the blunt hook slips between the longitudinal fibres, and these, when undivided, if ever so small, will prevent the eye from returning to its normal position. There is very little after treatment necessary. The eye need not be covered; if painful apply cold water.

CASE LXII.—*Congenital, oblique inguinal Hernia*, occurring in Thomas H——, aged 8 years, was exhibited, and Hull's truss applied. In these cases there is no proper hernial sac, but the intestines pass down into the cavity of the tunica vaginalis testis which is continuous with the general peritoneal cavity, the continued existence of the hernia having prevented the early obliteration of the peritoneal canal connecting them.

Jan. 8th. *Abscess beneath fascia lata of left thigh*, (Case XLV.) This patient, Ellen C——, has walked imperfectly for several weeks past, complaining, however, of no pain. A superficial ulcer has appeared near the opening of the abscess, and one or two elsewhere, evidently strumous in character. She is ordered good and nutritious diet, fresh air, daily ablution with warm water and friction with a coarse towel; also,

R. Liq. Iodinii comp. (Lugol's sol.)

S. gtt. vj. thrice daily.

CASE LXIII.—*Congenital varus, right foot*, in Robert C——, aged 1 month, to be operated for on 12th inst.

The subject of the Etiology of Varus is interesting, as it is involved in doubt. Under it we have to consider the question of *Hereditary transmission*, as well as *the influence of the mother's mind during gestation*. Upon these points many confirmatory facts are adduced, which have undoubted weight, although authors generally stand aloof from a participation in their consideration. But however we may view this matter in the present case, it is stated that the child's grandmother on the mother's side had club-foot, and that the father, (Case LXVII.) often during the last three years, had violent cramps in the right leg, which the mother (being pregnant) held and rubbed, frequently much frightened by their great violence.

Such facts are being made known to us constantly, and if they have no participation in the production of club foot they certainly form with it very singular coincidences.

12th. The operation for subcutaneous section of the tendo Achillis was performed in the usual manner, and Prof. Gilbert's apparatus applied.

15th. The puncture in the integument is found closed, the tendon elongated, and the foot very nearly in its normal position.

CASE LXIV.—*Ptosis*. Robert R——, aged 37. This patient has Ptosis, or falling, in his case, of *both* upper eyelids, the effect of a blow which occurred seven years ago, by the falling of a piece of timber, weighing about a hundred pounds, from a height of some eight feet, striking the upper and back part of the head in the median line, cutting the scalp and felling him, upon which the patient arose at once, but immediately fell again, being insensible for some time thereafter. He states that no especial treatment was resorted to, so that concussion, most probably, existed only in the first and second stages, the third or Inflammatory stage not supervening.

In about a year from this accident the Ptosis appeared. On examining the point of injury in the cranium, we discover a slight depression. It is possible that this affection may be the remote result of *contre coup*, or that there may have been a portion of the inner table of the skull detached, (since the patient often

perceived a sensation as of a loose foreign body beneath the injured point,) effecting this change by producing remotely a paralysis of the nerve supplying the levator palpebræ.

In some instances, Ptosis results from disorder of the digestive functions, and is removed by abstracting the cause. This condition is not found here. In this patient the relief of the affection would be obtained by removing an elliptical portion of the integument of the upper lid, and then bringing the lips of the wound together by the twisted suture; in this manner the occipito-frontalis would be made to act more directly upon the lid and perform the function of the paralyzed muscle, which indeed it does to a great extent at the present time. But as the ptosis, in this instance is so slight, the patient seeing quite well by throwing the head a little backward, the operation is not recommended unless it should become worse.

Jan. 12th. CASE LXV. Enlarged Lymphatic Glands.—Amanda M——, aged 25, of scrofulous diathesis, is shown to have enlarged lymphatic glands on the left side of the neck. For which the external application and internal administration of Iodine is directed.

19th. Improving.

CASE LXVI.—Sinus in Left Cheek.—Delia M——, aged 20. This patient has a sinus in the left cheek, whose external opening, through a fungus excrescence, is found at the middle of the left side of the base of the lower jaw, the result of an abscess which formed here a short time since. On examination of the mouth, a decayed fang of the first molar is found in the lower jaw, which has doubtless been the origin of the succeeding affection. Inflammation has been set up at its apex, and suppuration following, the pus has forced a passage through the alveoli, formed an abscess in the cheek, and discharged externally. As long, therefore, as the fang plugs up the socket, this fistula will remain, whilst adhesions will be contracted between the now consolidated integument and the bone, demanding at length a more extensive operation than mere extraction of the offending fang, which is always necessary, viz: extirpation of the fistulous tract.

The fang was then removed, and a poultice ordered to the external orifice of the sinus.

19th. Inflammation in the sinus is much diminished, and the case is progressing favorably.

Jan. 15th. CASE LXVII. Spinal Irritation.—Robert C—, aged 32. Carpet weaver. Some three years and a half since, this patient was first troubled with convulsive motions of his right leg, which gradually increased in intensity until about six months after their commencement, when he had cramps in both legs, which finally became general, almost amounting to a convulsion. Such attacks as these have recurred at uncertain intervals, of two, four or six weeks, up to this time. Œdema of the right leg exists to some extent: the appetite is good, and the action of the bowels normal. The patient is slowly emaciating, although the spasmodic attacks are not increased in frequency.

Pressure over the spine in the lumbar region produces decided pain in the right knee and thigh, from which we infer that the convulsive movements are dependent upon chronic inflammation of the meninges of the spinal cord, the nerves being unduly compressed at their exit from the canal. From the long standing of this case the best counter-irritant will be a Seton placed in the lumbar region. This was accordingly introduced by plunging a common straight bistoury through the base of a fold of integument raised up on the right side of the spinous processes, and the passage of a tape by means of an eyed probe. Iodide of Potassium, in 5 grain doses, which the patient has been using, it is thought proper to continue. Comparative rest is also desirable.

In regard to the amount of pain developed by pressure on the vertebral column in spinal irritation, it may be stated that in females the spine being more yielding than in males, the bones are made to act more readily upon the cord and its nerves, in the former than in the latter case, and pain in proportion to the flexibility of the column would result.

CASE LXVIII. Medullary Fungus.—James McC—, aged 60. A scirrhus lump existed in the lower lip of this patient, noticed first as a small desquamating surface, and from this pro-

gressing to a tumor of an inconvenient size ; twelve months since it was removed, and about six months after the operation the glands at the base of the jaw, on the right side and in the throat, enlarged and eventually ulcerated, presenting the unfavorable appearance now exposed. The cachectic look of the patient, his advanced age, the rapid growth of the tumors, the extended ulcerating and fungous surface, the firm base of the diseased mass attached to the bone and tissues, and the persistent pain, forbid any idea of relief by operative means. In such a malignant disease as this with which we are called to contend, palliatives are our only measures.

There is therefore prescribed as a local appliance,

R.	Acidi Arseniosi,	gr. iv.
	Pulv. Opii,	gr. xii.
	Zinci Oxidi,	ʒss.
	Cerat. Simp.	ʒiii.

M. ft. in ung.

S. Apply twice daily.

Bowels to be kept open and nutritious food eaten.

This case is precisely similar to Case LI, Mr. G——, except that it is further advanced, having reached the ulcerative stage.

CASE LXIX. *Strabismus*.—James C——, aged 27. Has convergent strabismus of the left eye, which is non-congenital, but has existed as long as he can remember, and is extreme in its degree. The operation was performed in the usual manner, and the tendon of the internal rectus muscle *entirely* divided ; notwithstanding this, however, the parallelism of the globes was not *quite* restored. It is directed, in order to establish their proper relation, that the sound eye be closed, and the affected eye alone used for a time ; thus a habit of turning it outward will be established, and the proper tone of the external rectus restored ; then the eyes will, it is hoped, be found to have regained their parallelism.

No external applications made ; cold water directed only, if inflammation be set up, or a tendency thereto is shewn.

Jan. 19th. CASE LXX. *Cleft Palate*.—Deformities of this kind depend upon *arrest of development* during intra-uterine existence, and may arise from imperfection in the elaboration of the male semen or in the formation of the ovum, from deficiency in the structure of the maternal organs, or accidents during gestation. The body being formed of symmetrical halves, an arrest of their union in the median line, or an imperfect development of either half, and other changes, may result in a great number of congenerous deformities, as spina bifida, hare lip, and other fissures. There may be deficiency of the extremities, or adhesion of the lower limbs throughout their entire length, (as seen in a specimen in the College Museum,) there may be closure of the orifices of the rectum, vagina, etc. These affections, as before stated, are the result of a want of the proper *development* which should occur during *intra-uterine* life; *growth* being the *extra-uterine* condition in life.

This patient, Jacob M——, aged 11, has a cleft in the soft palate principally; the posterior part of the bony arch only being affected; the uvula is divided in the mesial line, the lateral halves being perfect.

If this patient was old enough to co-operate with us in the treatment, we might pare the edges (of the lateral halves of the uvula) which present to the median line, and bring them in apposition by ligatures; but so much is dependent on the quietude of the patient, and his just conception of the importance of the operation and its results, as a guide to his conduct, that we shall not recommend any decided measure until he has attained a greater age.

CASE LXXI. *Eczema*.—John McI——, aged 10. This disease made its appearance some four years since, the eruption now existing principally about the nates and posterior part of the thighs. No previous treatment has had much control over it.

Ordered,

R. Liq. Arsenici et Hydrargyri Iodidi.

S. Three drops, thrice daily.

and R. Ung. Picis Liquidæ.

S. Apply to eruption daily.

CASE LXXII. *Double Cataract.* Margaret G——, aged 59.

Patient states that about nine years since, the sight in the right eye failed somewhat, and double vision followed. Strong applications were made to the part; violent inflammation followed, and vision failed still further. This was lost first in the upper, and then in the outer part of the eye, and objects at first seen double were now tripled. Sight was then lost, in this, and soon the left eye became similarly affected. She can now distinguish the light of the sun and that of candles.

The left eye is chosen for operation.

From the history of this case it would seem that an inflammatory condition of the eye is liable to be set up by any irritating cause, more readily than is usual. The color of the cataract is dark grey, so that we shall probably find it fluid or soft, and this must be discharged into the anterior chamber.

The eye is of good form, however, and we shall use a very *fine* straight needle; the patient has also been purged gently as a preparative; by these means we hope to obviate any inflammatory accession.

Sclerotonyxis was then performed with a fine straight needle, nearly in the axis of the ball on the outside, and one and a half lines posterior to the corneal margin. Rather more external hæmorrhage than is usual followed the puncture; the cataract was found soft, and was broken up and dispersed with but little difficulty.

Prof. Gilbert states, that in persons of this age, we expect to succeed in four out of five cases, whilst in young subjects we succeed in nineteen out of twenty. A favorable result has followed the operation, in his hands, in several cases over the 75th year.

BIBLIOGRAPHICAL NOTICES.

Report of the Select Committee of the House of Representatives to whom was referred the memorial of Dr. WM. T. G. MORTON, asking remuneration from Congress for the discovery of the anæsthetic or pain-subduing properties of Sulphuric Ether. Dr. WM. H. BISSELL, of Illinois, Chairman.

This is the report agreed upon by the committee above named, and which is now published, in advance of its presentation, with the attest of the Clerk of the House, dated June 28, 1852. It fully recognizes and endorses the claim of Dr. Morton, and is accompanied by an act granting to him the sum of \$100,000, on condition that he surrenders all right and title to the patent heretofore issued to him. The report is able and learned, covering the whole field of controversy between Dr. Morton on the one hand, and Drs. Jackson and Wells on the other. In its general conclusions we are disposed to coincide. It fully makes out the case of Dr. M. as against his rival claimants, placing Dr. Jackson in the unenviable position of claiming the credit of an improvement which he certainly did not make, and in the responsibility of which he seemed by no means anxious to be involved at the time. We cannot add, however, that it so fully makes out Dr. M.'s case in his own behalf. We are willing to give him all the credit he really deserves, and we have no objection that Congress shall allow him the sum named. But we cannot agree that Dr. M. has made altogether such a discovery as the Committee report, or that to him *alone* is due the credit of introducing anæsthesia in surgery.

It does not appear, even by the showing of this report, that Dr. M. did in reality *discover* the pain-subduing power of ether, as stated in his memorial. That was pretty well known before, as the facts cited by the committee sufficiently prove. Dr. M. confesses that it was from Dr. Jackson that he learned the local anæsthetic effect of ether as applied to a painful tooth,—an observation by no means original with Dr. J., although he seems to have thought so. Many similar applications of it had been suggested. Among others that seem to be overlooked, Mr. Hugh

Neill of Liverpool had previously recommended the injection of vapor of ether into the Eustachian tube in painful affections of the internal ear, with a distinct recognition of its local anodyne power. Neither was the idea of producing general anæsthesia by inhalation of narcotic vapor original with Dr. M. He had witnessed the unsuccessful attempts of his former partner, Dr. Horace Wells, to produce it by nitrous oxide gas. The transition to sulphuric ether was obvious. The merest tyro in chemistry has, for these many years, known how similar are the effects of vapor of ether and nitrous oxide when inhaled. Both had been taken thousands of times to the extent of intoxication, and the result seen to be almost identical. Thus it appears that Dr. Marcy, of Hartford, suggested to Dr. Wells in 1844, to substitute the ether in his experiments, which he did in one instance with entire success. Dr. Morton has given a long account of the steps by which he arrived at his conclusions, showing that his difficulty arose in the outset from his ignorance of facts well known to others at the time. His merit consists simply in his having first had the courage and directness to settle conclusively by a practical test what with others had been only a suggestion or proposition. For this he certainly deserves praise, and we are not disposed to withhold it from him. What he really did discover was not the anæsthetic power of ether, but the fact that it may be given with safety to the extent requisite for annulling pain in surgical operations. Were he to claim no more than this, we imagine that his right would be generally admitted at once; and the improvement is such, that we think even an ambitious man, as Dr. M. expressly states himself to be, might be satisfied with the credit arising from it.

Much of Dr. M.'s difficulty seems also to have arisen from the spirit in which he prosecuted his inquiries. Had he consulted any competent chemist frankly, he could have learned all that he needed about sulphuric ether at one interview. Had he sought the advice of any skilful physician, he could have been enlightened readily with regard to the probable effects of his proposed experiment, and the means of guarding against any ill consequences. But, instead of this, we find him, by his own statement, cautiously propounding guarded questions concerning ether to scientific persons—stealthily picking up odd scraps of information—

trembling lest others might divine his object in catechizing them—sending his “four-ounce-phial” first to one and then to another apothecary—afraid to take the means necessary to secure him good ether, and altogether displaying an extraordinary degree of suspicion as to the honesty and honor of his neighbors. No sooner had the surgeons of Boston used the mysterious fluid which he brought with him to the Hospital, and demonstrated that it could be employed with safety, than he commenced steps for procuring a patent. The fluid itself was called Letheon, and the style of its announcement was such as to lead the profession to believe that Dr. M. had discovered *a new substance* with these extraordinary powers. Let any one recur to the journals of the day, and he cannot resist the conviction that such impression was produced *intentionally*. Now, in this business, as well as in that of the patent, there was a degree of quackery which has always rendered us indifferent as to whether Dr. M. succeeded in establishing his claim or not. It is true, his patent has turned out valueless. As Mr. Borland remarked in the debate upon this subject in the Senate, August 28th, 1852, “his patent, so far as the legal remedy extends, is worthless to him, although he has the legal right.” And why worthless? Simply because the claim of exclusive right in such a case is absurd on the face of it. Mr. Smith, of Connecticut, took the true position, when he argued in the Senate that “this was not a patentable discovery.” We can readily understand the issue of a patent for any new instrument or any process of art. But a patent for the exclusive use of any particular property of a given substance is beyond our comprehension. Suppose the first individual who discovered that a glass rod was rendered electric by rubbing with silk, had taken out a patent for the exclusive use of electricity. Would the deputy-marshal of the United States be called upon to apprehend and lead before the magistrate every man who rubbed a glass rod with a silk-handkerchief and therewith attracted bits of paper? If Dr. Franklin had taken out letters patent for the exclusive right to attract lightning from the clouds—supposing such an event possible,—would the authorities be obliged to scour the commons and confiscate every boy’s kite? The philosopher might have patented his lightning-rod, undoubtedly, but if another investigator of nature

had discovered another and better method of protecting buildings from lightning, the patent would become of no effect. The cases are parallel. Dr. Morton might have patented any particular method of inhaling ether, but the right of any man to inhale it he could not touch. Suppose we reach up to our shelf, and, taking down the ether bottle, inhale a drachm or two of it—are we liable to an action at law for the offence? The thing is so totally absurd, that it defeats itself at once. Dr. M. was aware of this at the outset, and hence the mystification about “*Letheon*” which could not be kept up. We are sorry to be thus hard upon him, but we think he deserves it all.

We must also be permitted to observe, that this is the most curious Congressional document that has ever fallen under our notice. If it is gotten up by the committee and published at the public expense, Dr. M. may congratulate himself upon having secured enthusiastic friends at head-quarters. In addition to the report, we have numerous documents corroborative of Dr. M.’s claim, with lithographic copies of the certificate in his favor by physicians of Boston, and of the Monthyon medal given him by the French Institute. In the body of the report we have printed copies of his tickets in the Medical School of Harvard University, and also of a diploma (honorary?) from a college to the south of this latitude, which is without a date, and has the additional peculiarity that one of its professors, (writing himself A. M.,) signs and duplicates his signature as *Georgium*. This sort of publication may be all very right and proper, but it strikes us as an immense piece of *Barnumism*, similar to that upon which we have already animadverted. We cannot resist the conviction that this pamphlet has been got up by some of the patent-agents and “claim-brokers” who now abound in Washington, benevolently ready to assist—for a consideration—any one anxious to have a finger in the long purse of Uncle Sam.

Principles of Human Physiology, with their chief applications to Psychology, Pathology, Therapeutics, Hygiene and Forensic Medicine. By WILLIAM B. CARPENTER, M. D., F. R. S., F. G. S. *Fifth American, from the Fourth and Enlarged London Edition, with Three Hundred and Fourteen Illustrations.* Edited with additions, by FRANCIS GURNEY SMITH, M. D., Professor of the Institutes of Medicine in the Medical Department of Pennsylvania College, etc. Philadelphia: Lea & Blanchard, 1853. pp. 1091.

The popularity of Dr. Carpenter's "Human Physiology" in this country has been strikingly attested by the numerous editions which it has gone through. Not only every English edition has been reproduced, but in one instance a second American of one of the English editions was called for. The fourth and last English edition was completed only two months since in London, and we are indebted to the enterprising American publishers for its almost simultaneous appearance in the United States.

This edition is essentially a new treatise. The author has not only remodelled his work, with a view to the modifications introduced into the details of Physiological Science, since his last edition; but he has, in many important particulars, condensed, amplified, rearranged, and altered his original views upon various topics, which "the progressive maturation of his own opinions, and his increased experience as a teacher, have caused him to look upon in a light very different from that under which he had previously regarded them."

Without attempting a complete outline of the changes interwoven by Dr. Carpenter, in the "reconstruction" of his work, we may notice some of the more striking and prominent. Perhaps of these the most important is the introduction of the *second chapter* of this edition, which comprises a general view of the "Chemical Components of the Human Body, and the changes which they undergo within it." The scope of this chapter embraces many recent discoveries, and includes perhaps more of the topics which in Physiology its varying aspect, than any other department. Dr. Carpenter has succeeded admirably in presenting a faithful and concise exposition of the present state of our

knowledge on this important subject." We shall especially advert only to his views on two very interesting points in this connection—"the respective relations of fibrin and albumen to the nutritive processes, and of the former to the gelatinous tissues"—and "the discoveries of M. Cl. Bernard in regard to the elaboration of sugar and fat in the liver."

The doctrines of Zimmermann and Simon, that fibrin is one of the elements of the blood "which have arisen in it from its own decay, or has reverted to it from the *waste* of the tissues," is rejected by Dr. Carpenter,

"as completely opposed by the whole physiological history of Fibrin, and more particularly by the gradual development of this ingredient in chyle, during its onward progress to the sanguiferous system; whilst, again, it seems to be entirely negatived by a comparison of the condition of fibrin with that of the known products of the disintegration of the tissues, such as urea or creatin, in which we see a marked tendency to the reproduction of purely physical or chemical conditions, (and this pre-eminently in the crystalline aggregation,) to the exclusion of those of vitality."

Fibrin, on the contrary, he believes, according to the commonly received views, to be endowed with vital force during the *assimilation* of the crude material furnished by albumen or casein, and to be "the first step in its conversion into living tissue." But, he adopts the surmise—

"that the peculiar vital powers, with which fibrin is endowed, give a special tendency to development into tissues of the fibro-gelatinous type, which may thus be almost said to be *pre-formed* in the blood; whilst the tissues of the cellulo-albuminous type *develop themselves* at the expense of some other element of the blood, possibly the globulin of the floating corpuscles."

As regards the elaboration of fat and sugar by the liver, Dr. Carpenter considers it to be the result of the disintegration of the tissues, which, in the descending process,

"resolve themselves into two classes of substances; on the one hand, saccharine, oleaginous, and resinous matters, analogous to those of plants in which carbon predominates; on the other, a set of compounds peculiar to animals, of which nitrogen is the characteristic ingredient. * * * * * The *sugar* generated by the agency of the liver, from the products of the *waste* or disintegration of the system that are contained in the blood, seems to be at once employed in supporting the combusive process by which the animal heat is maintained."

The chapter on "the Structural Elements of the Human Body,

and the Vital Actions which they exhibit"—which includes the general doctrines of Cell-formation and of Vital Force—is also new.

The chapter on the "Physical Characters, Chemical Composition and Vital Properties of the Blood" has been greatly extended and almost entirely re-written.

"The series of chapters on the several organic functions remain the same as in the previous edition; but important additions and corrections have been made in every one."

"It is in the chapter devoted to the Functions of the Nervous System, which constitutes one-fifth of the entire volume, that the greatest additions and alterations will be found. This subject, in its Psychological as well as in its Physiological relations, has occupied more of the Author's attention than any other department of Physiology; and he now offers the more matured points of his enquiries and reflections, with some confidence, that even if his views should hereafter require modification as to details, they will be found to be fundamentally correct, and to furnish materials of some value in Psychological inquiry, as well as in the study of Mental Pathology."—*Preface*, pp. 13, 14.

We have thus adverted to some of the leading "additions and alterations," which have been introduced by the author into this edition of his Physiology. They will be found, however, very far to exceed the ordinary limits of a new edition—"the old materials having been incorporated with the new, rather than the new with the old." It now certainly presents the most complete treatise on the subject within the reach of the American reader; and while, for availability as a text-book, we may perhaps regret its growth in bulk, we are sure that the student of physiology will feel the impossibility of presenting a thorough digest of the facts of the science within a more limited compass.

It is to be observed, that a large number of *references* have been incorporated with this edition; and "to this addition, no small portion of the augmented bulk of the volume is due."

The duties of the American editor have been performed with excellent taste and discretion. His additions have been limited to an "occasional illustration of the text," and a notice of such recent discoveries as have appeared in the journals, while the sheets passed through the press. The additional matter, though not overloading the text, will be found every where appropriate and valuable.

On Animal Chemistry in its application to Stomach and Renal Diseases. By H. BENCE JONES, M. D., etc., London. John Churchill, 1852.

We have here a London copy of this excellent work, kindly furnished by M. Bailliere of New York. It does not purport to be a complete treatise upon the subjects mentioned in the title, but is composed of twelve separate lectures, illustrating some few of the varied diseases affecting the Stomach and Renal system.

The author in the commencement pays a merited tribute to Dr. Prout, whose well known work is admitted to be the "fons et origo" of most of the treatises on the affections which Dr. Jones now discusses.

The 1st Lecture is devoted to the consideration of Food, comprising all that is new and valuable under that head, and its relation to Air, Exercise, Respiration, &c. The 2d Lecture, on Digestion, contains much information on that subject, of value. From this to Lecture 3d the transition is easy. It considers the Blood, and furnishes all that is essential upon that important component of the animal economy. Lecture 4th commences the consideration of the Urine, beginning with Calculi. Lectures 5th and 6th consider respectively the quantity and Acidity of the Urine and Uric acid. These lectures demand more than a passing notice, as they are important in a chemical point of view. Dr. Jones does not believe the statement of Prout, that the acidity of the urine is dependent upon acid urate of ammonia, yet in confirmation of Prout's views we may mention that vol. li. of the *Annalen der Chemie* gives two compounds—lithate of ammonia and super lithate of ammonia. Dr. Jones, however, says, "the conclusions I have arrived at are that uric acid is combined with ammonia, but the urate of ammonia is modified in form and in solubility by common salt and other saline substances which exist with it in the urine." And again, "the so-called super lithate of ammonia, I consider to be a mixture of uric acid and urate of ammonia." As it is, farther observations are necessary to determine the existence of one or two compounds, and we do not arrogate to ourselves the power of determining the true state of the question.

Lecture 7th considers Oxalate of Lime and Sulphates. Dr.

Jones here introduces to the profession a new term, "sulphuric diathesis."

He promises, that at a future time he will notice more fully the variations of the sulphates in disease, and hints that there is a peculiar class of diseases in which the sulphates are in excess.

Lectures 8th and 9th consider the Alkalescence of the Urine. Lecture 10th, Albuminous Urine. Lecture 11th, Diabetes and Diuresis; and Lecture 12th, Relation of Urine to food and animal system and methods of examination.

The work is written in a free and off-hand style, and in a manner that evinces a thorough study of the subject before presenting it to the profession. In the rage for new things we too often pass by that which may appear trivial and unimportant in order to observe the grandeur of the new.

In the volume before us attention to this fact will help us to deduce from the observations of the writer, much of value to the practitioner. It has often occurred to us, that these are the only works where the connexions of physiology and pathology are demonstrated; very frequently it happens that in pursuit of physiological knowledge we are apt to lose sight of its application to pathology, or rather forget to make the application.

The book may be placed along with the manuals of Bird, Griffith, Warwick, &c.

It comprises 139 pages, and is plainly printed and neatly bound. To the student of animal chemistry it opens a wide field for observation, and one from which he can glean much. We have no doubt that an American edition would be hailed with pleasure. The increasing attractions this subject presents to the profession, have engendered a proportional demand for information, and this volume appears opportunely to supply the want.

It is well to have such books as these in one's library. To most, the works of Bright, Prout, &c., are inaccessible; and in the 139 pages, Jones has condensed much that is eminently practical and valuable, in his own enthusiastic manner. Space does not permit us to attempt a thorough analysis of the whole work, and we must therefore close this hasty sketch with a hearty commendation of it to all who are interested in this department of medicine.

First Principles of Chemistry for the use of Colleges and Schools. By BENJ. SILLIMAN, Jr., M. A., M. D., &c. *With Four Hundred and Twenty-five Illustrations. Twenty-fifth Edition. Re-written and enlarged.* Philadelphia: H. C. Peck and Theo. Bliss. 1852.

We have before us a copy of the twenty-fifth edition of this excellent work, and if any evidence of its value were needed, this fact alone would be sufficient at once to mark its popularity. The whole work has been re-written and to a great extent re-arranged, according to the standard facts and doctrines now received in chemical science. The work is divided into four parts. Part I. is devoted to the consideration of PHYSICS, embracing all that is usually taught in that connexion with chemistry, as Matter, Heat, Light, &c. Part II. considers CHEMICAL PHILOSOPHY, embracing the Laws of Combination, Nomenclature, Symbols, &c. Part III. is devoted to INORGANIC CHEMISTRY, treating of the Classification of the Elements, and the consideration of each in particular, with their combinations, &c. And "last, but not least," Part IV. comprehends ORGANIC CHEMISTRY, giving under that caption the Nature of Organic Bodies, the Vegetable Acids and Alkaloids, the Blood, the Nutrition of Animals, Plants, &c. &c.

The work by its title claims to be the "First Principles of Chemistry," and it has certainly attained that mark. It is in its style clear and perspicuous, and in its matter elaborate without becoming abstruse. It is admirably adapted to the wants of the beginner in chemical research, and on this ground claims the attention of the medical teacher as a class book in the office for students. In our opinion, it is eminently suited for this purpose—presenting to the tyro a book from which he can gather all that is necessary in this go-ahead age for raising the foundations upon which to build in the future, while it will furnish to the advanced student much important information in a form convenient for ready reference. We say this after having examined the work minutely, and finding much in it to awaken the mind and refresh the memory. It is already the "Text-Book at Yale College," and several similar institutions, where it has been adopted for the use of

those who consider that chemistry should be a component part of every liberal education.

The work consists of 544 pages (exclusive of the Index), of which number about 120 are devoted to the consideration of Physics, 17 to Chemical Philosophy, 200 to Inorganic Chemistry, and about 200 more to Organic Chemistry. In the latter part of the work considerable tact and care are evinced in the classification of the great mass of facts that have accumulated within the last few years in this department of chemistry. In fact, Organic Chemistry has of late attracted so much attention, although even yet not as much as is commensurate with its importance, that a chemical work without a full exposition of it is not now complete.

This department has been arranged under the supervision of Mr. T. S. Hunt, who has proved himself fully competent to the task. Emanating, however, as the major part of the work does, from the pen of a "Silliman," is the best evidence of its correctness and sound chemical reasoning. The book is copiously illustrated, and it has seldom been our pleasure to observe more accurate and beautiful wood-cuts. In its typography it will vie with many other works of more pretension, and in its general "getting up" it does a deal of credit to its publishers. We wish it an extended sale and a careful perusal.

Notice of the Life and Professional Services of William R. Grant, M. D. By HENRY S. PATTERSON, M. D., Professor of Materia Medica and Therapeutics, in the Medical Department of Pennsylvania College.

Dr. Patterson has presented a highly appropriate and interesting memoir of his late colleague, who, during a short professional career, and comparatively brief sojourn here, worked his way to no little distinction and deservedly high personal estimation.

Dr. Grant was a native of Nova Scotia, whence he emigrated to Philadelphia, in the year 1836, to matriculate as a pupil of Jefferson Medical College, where he graduated in 1839. "He was immediately appointed Demonstrator of Anatomy, and Curator of the Museum of Jefferson College, which situation he filled with credit to himself and advantage to his alma mater for

three years." In 1843, upon the dissolution of the original Faculty of Pennsylvania College, Dr. Grant formed one of an association which assumed the task of re-organizing the School; and his duties in this sphere, as Professor of Anatomy, were continued till his death, last Spring. As a teacher of Anatomy, he earned considerable reputation and popularity; and his labors were no doubt efficient in elevating the School to its present point of success. "In his professional relations, Dr. Grant was characterized by great amiability of temper, courteous deportment, and the strictest integrity."

General Pathology, as Conducive to the Establishment of Rational Principles for the Diagnosis and Treatment of Disease; a Course of Lectures delivered at St. Thomas' Hospital during the Summer Session of 1850. By JOHN SIMON, F. R. S., one of the Surgical Staff of that Hospital, &c. &c. Philadelphia: Blanchard & Lea; 1852.

This is the title of a new work recently re-published by Messrs. Blanchard & Lea, of this city. It consists of a series of highly interesting and instructive lectures delivered at St. Thomas' Hospital, London. Some of the new and apparently heterodox ideas therein advanced upon Pathological subjects, at first tempted us to cast aside the book, as one subverting doctrines hitherto taught and received; but when we examined the sound and cogent arguments, and beheld the unmistakeable array of evidence adduced by Mr. S. in support of his propositions, we were forced to the conclusion, that many of our long accredited and cherished opinions on the subject of disease could no longer be sustained by reason or supported by fact.

His views are plainly and concisely stated, and in such an attractive manner, as to enchain the attention of the reader; and should they be adopted by the profession at large, are calculated to produce important changes in medicine. Physicians and students will obtain from its perusal not only the latest discoveries in Pathology, but that which is even more valuable, a systematic outline for the prosecution of their future studies and investigations. Altogether, we look upon it as one of the most satisfactory and rational treatises upon that branch now extant.

THE MEDICAL EXAMINER.

PHILADELPHIA, FEBRUARY, 1853.

TRIBUTE TO DR. BROWN-SÉQUARD

At a meeting of the medical gentlemen who have attended the lectures of Dr. E. Brown-Séquard, held Dec. 14th, 1852, Dr. Warren was called to the chair, and the following resolutions, offered by Dr. Henry J. Bigelow and seconded by Dr. Bowditch, were unanimously adopted, after amendments by Dr. Bartlett and Dr. Coale :

Resolved, That having attended a course of lectures by Dr. Brown-Séquard, illustrated by dissections and experiments upon subjects connected with physiology, and especially with that of the nervous system, we are desirous of expressing to Dr. Séquard the gratification which we have received from these lectures, which have been the result of extended original research, which have been eminently characterized by a spirit of rigid induction, and which have conveyed many practical hints upon pathological subjects. Therefore

Resolved, That we hereby offer our thanks to Dr. Séquard for the gratification and profit we have received from his very interesting lectures. That we commend these lectures to those members of our profession in other cities who may not have had the pleasure of hearing them ; and that we indulge the hope that Dr. Séquard may find it convenient to continue his lectures here at some future time.

CORRECTION.

The paper of Dr. Alison's, communicated by Dr. S. Lewis, in the January Number of this year, should have been accredited to the "Proceedings of the Royal Soc. of Edinburgh," instead of *Edinb. Phil. Trans.*

NEW JERSEY MEDICAL INSTITUTE.

A new summer school has been established at Burlington, with which Dr. Joseph Parrish, Editor of the N. J. Medical Reporter, Dr. B. H. Rand, Dr. S. S. Brooks, Dr. J. B. Coleman and Dr. L. Read are associated. They offer many advantages to students during the summer season, and we doubt not will receive a full share of patronage. We wish them success.

CABINET OF MINERALS.

We call the attention of our readers to the following letter from Dr. Coxe. The collection is a very valuable one.

MY DEAR SIR,—May I request of you the favor to announce in your "Examiner" my intention of disposing of a very large and valuable Cabinet of Minerals, the collection of more than thirty years, and at an expense of several thousand dollars. The specimens are mostly of large size and beauty, and well adapted for a College or Public Institution. A large collection of models of the forms of crystals, constitute a part of the Cabinet; also, two large and fine specimens of hexagonal columns of Basalt, from the Giant's Causeway, in Ireland.

I am very truly your friend and obedient servant,

JOHN REDMAN COXE.

DR. SMITH.

Jan. 5, 1853.

At a stated meeting of the Northern Medical Association, held January 6, 1853, the following members were elected Officers for the present year :

President—Dr. Benjamin S. Jarney.

Vice President—Dr. N. L. Hatfield.

Counsellors—Drs. Joseph R. Bryan, John F. Lamb, Wm. Mayburry, Isaac Remington and John Uhler, Jr.

Secretary—Dr. J. Henry Smaltz.

Corresponding Secretary—Dr. Isaac Remington.

Reporting Secretaries—Drs. John Rhein and C. P. Turner.

Delegates to the American Medical Association—Drs. L. Curtis, B. S. Janney, N. L. Hatfield, J. F. Lamb, R. J. Levis and Isaac Remington.

VIRGINIA MEDICAL AND SURGICAL JOURNAL is the title of a new aspirant for favor in Richmond, and edited by George A. Otis, M. D. and H. L. Thomas, M. D. The first number will be issued on April 1st, 1853, and the succeeding numbers will appear monthly.

The objects proposed in its publication are the diffusion of *Medical Knowledge and Intelligence*; the advancement of *Science*; and the support of the dignity and interests of the Medical Profession.

Each number will consist of eighty large octavo pages, containing Original Papers, Memoirs, and Reports of cases; an account of the transactions of Medical Societies in Virginia; a Summary of Improvements and Discoveries in Medical Science, at home and abroad; Reviews and

Bibliographical Notices ; and a portion of a Standard Work in some important Department in Medicine. Price, \$5 a year.

We welcome our new friends into the editorial fraternity, and assure them of our hearty wishes for their success. There is material and talent enough, and to spare, in the Old Dominion to support and encourage another good Journal.

MEDICAL NEWS.

Dr. J. B. BIDDLE has been appointed lecturer on *Materia Medica* and Therapeutics in the *Philadelphia Medical Institute*.

From the well established reputation and success of Dr. Biddle as a teacher, we predict increased popularity to the school with which he is connected.

DR. BERNARD HENRY has been appointed to the chair of Physiology in the same school. S.

SINGULAR INVESTIGATIONS IN A TRIAL FOR MURDER.—The following curious case has excited great attention in the law courts of Berlin :

Sept. 10, 1849, some peasants found on the bank of a rivulet, which flowed into the Spree, the body of a man, whose head had been detached by an incision carried between the first and second dorsal vertebræ. The head had been so much disfigured by the assassins that recognition was impossible. Near the body was a small cane, a hat, and a box of allumettes ; some of the clothes were remaining on the trunk.

The day following two physicians drew up a report, which was unsatisfactory and imperfect. Some time afterwards they both in court declared, together with the magistrates present at the examination, in answer to some questions, that there were no cicatrices from scarifications, nor marks of tattooage upon the body.

A girl came forward, and stated, that from the accounts published in the Berlin journals, she felt sure the deceased was her husband. The body was disinterred, and she recognized it by the external organs of generation, as well as by the clothes. Yet the witness was found to be a prostitute, who never had been married in her life. Other researches led to the supposition, that the assassin of the unknown individual was a cattle merchant, named Gottlieb Ebermann. These suspicions, however, did not last long, for there came reason to believe, that Ebermann was the man murdered. It was said of him, that he might be recognized by traces of the cupping scarificator on the wrists, and tattoo marks of

a heart and of the initials "G. E" on the left arm, both of which points of identification were asserted by the very surgeons who had bled him. But Ebermann's sisters and wife stated, that they knew nothing of such marks, consequently there was a second exhumation, five months after the death, but no traces were found on the body. The wife's evidence was not considered valuable, as she had been only recently married and much separated from her husband. A person then came forward, and declared that he had seen and spoken to Ebermann within four-and-twenty hours; he, however, was proved a madman. Lastly, a mistress of Ebermann stated positively that the little cane found near the body belonged to a man of small stature, once a postilion, now a brigand, named Schall, at whose lodgings Ebermann's own cane had been seized. The girl recognized the dress, and particularly the braces, which she had herself worked. There was a third exhumation, December 11, 1851, twenty-six months after the death, when the girl recognized the body by something peculiar in the teeth and the beard. On August 11, 1851, this same girl had been nearly assassinated; doubtless by the accomplices of Schall, then in prison. The question as to whether the scarifications and the tattoo marks, seen upon Ebermann's body by competent witnesses, could by possibility become effaced by time, was referred to M. Caspar of Berlin. In his report, taken from the observations made in a large asylum for aged and invalid soldiers, a class upon whom tattoo marks are common, he states that out of 36 examples, in 3 the tattooage had become faint with time; in 2, the marks were partially effaced; in 4, they were completely obliterated: consequently, says M. Caspar, the marks of tattooage can disappear. A witness came forward, and declared, during the investigation, that at 15 he had tattooed himself on the arm with cinnabar, and that the marks had become entirely effaced. The conclusion of the trial was, that Schall was condemned to death.

In *L'Union Médicale*, Nov. 16, 1852, Dr. Chereau justly observes, respecting Caspar's report, that it is not one which should influence a judicial decision, for it is not stated at what age, with what substance, and in what manner, the marks were produced in the four instances where there was complete obliteration. Are the men to be trusted? How many years elapsed before the marks became effaced? The question cannot be considered in any way satisfactorily settled as it now stands; indeed, Caspar's assertions tend to raise doubts, which heretofore did not exist, upon a point which might be most important in a prisoner's favor, viz., the persistence of these stains. There is evidence that

the absorbent glands in the neighborhood of a tattoo mark become filled with pigment. At the time of writing this report, there is in the dissecting-rooms attached to St. Bartholomew's Hospital, the body of a native of one of the islands of the Eastern Archipelago, whose skin has been ornamented to an extent but rarely seen. The whole back, from the sacrum to the shoulder, is covered with circles, radiating stars, and feathers; the arms and the thighs are both marked, but the front of the body is comparatively clear. The absorbent glands in the groin and about the axilla were of deep black hue; those in the neck of the ordinary white color. Mr. Coote, the demonstrator of anatomy, succeeded in dissecting out some absorbent vessels leading to the glands in the thigh, filled with black pigment in long streaks. These indications of the action of the absorbents were however few, and the tattoo marks existed everywhere with as much clearness apparently as at the time when they were first made.

A similar remark may be offered respecting the possibility of the disappearance of cicatrices. If there have been a complete loss or division of integument in its whole thickness, the mark remains obvious till decomposition after death destroys the tissues. If the skin be only partially destroyed, there ensues a cicatrix of a different kind; one much more resembling the natural structure of the skin, unattended with contractions, and capable of becoming very faint, and liable to be overlooked, except upon close examination. We have no hesitation of expressing our opinion that Caspar's report does not tend in any way to invalidate the statement which has heretofore been received in courts of law—namely, that tattoo marks and cicatrices are indelible.—*London Med. Times and Gaz.*

[The following Communication was accidentally omitted in the Original Department. It is therefore introduced in this place.—Eds.]

THE MODUS OPERANDI OF ACIDS IN SCURVY. By WM. H. WHITE, M. D.—In presenting the following views to the notice of the medical public, it is not so much the object of the writer to enter into detail as to the symptoms and appearance of the disease termed "Scorbutus," as it is to advance a few ideas relative to what he believes to be the state of the blood and the modus operandi of acids and vegetables containing acids, and to shew forth the reason why, if possible, it is, that these articles should, and do operate beneficially in the cure of this disease.

The disease *itself* has been treated of by nearly all writers on medicine since about the middle of the sixteenth century. And all have

advanced, in their different essays, the same idea relative to the state of the circulating fluid. They speak of it as if there were a deficiency of some of its constituent parts, which is supplied to the blood by the acid administered for the cure of the disease, and the deficiency being removed, the patient is restored to health.

That the seat of the disease rests entirely in the blood, is admitted on all sides; and that medicines prove of little benefit unless at the same time acids or fresh vegetables be administered, is as unanimously admitted.

But the ground upon which we wish to differ in opinion from those invariably expressed by different writers is, that there is actually *no* deficiency in the blood, but on the other hand an excess, and that excess an alkaline principle which successfully opposes the taking place of that chemical change which the blood should undergo in order to be of a proper chemical constitution. This alkaline principle (soda or potash) exists in the blood in excess, owing to the patient having been deprived of the food from which the system might obtain acid in order that it be neutralized, and the salts of the blood be formed.

If we examine the blood taken from the arm of a scorbutic patient, it will be seen to have undergone considerable chemical change, which is manifested by its very dark appearance, and its being in a completely dissolved state,—not coagulating unless there has been inflammation present.

Now, should we take such blood as soon as drawn from the arm, and add to it an acid, it will assume its natural appearance and color, and will coagulate the same as that taken from the arm of a healthy individual. In like manner will the acid operate upon the blood of a scorbutic patient when given him, by its being taken into the circulation and restoring the *blood* to health—not by the blood taking and assimilating a portion of the acid to itself merely,—but by its producing a chemical change in the blood: The acid, in its round with the circulation after it has been absorbed, comes in contact with the alkaline principle (soda or potash) which is in excess, and neutralizes it and forms the salts of the blood. The system having been previously deprived of the material from which it might obtain the acid to produce this change, the alkalis have been allowed to increase to such an excess as to produce the disease. And the very moment the patient has administered to him the acid or the food containing it, he commences rapidly to advance towards the stage of perfect recovery.

If we were to credit one class of writers we would be led to believe that the disease consisted in an excess of “fibrine,” and on the other

hand, to credit a second class, that it consisted in a *deficiency* of fibrine and an excess of red corpuscles. But we believe the most rational conclusion is, that the blood possesses alkaline principles in excess, and the acid, by neutralizing them, forms the salts to which the blood is legitimately entitled.

Philadelphia, Jan. 1853.

RECORD OF MEDICAL SCIENCE.

MATERIA MEDICA AND THERAPEUTICS.

MEDICAL SOCIETY OF LONDON.

SATURDAY, DECEMBER 4, 1852.—MR. BISHOP, PRESIDENT.

Dr. DE MERIC showed to the Society the saccharine capsules of copaiba and cubebs, prepared by M. Jozeau, under the name of Copahine-Mège, which have been described in a late number of this journal, (see THE LANCET, vol. ii. 1852, p. 422;) and as this was neither a secret nor a patented remedy, he was induced to try it in his practice. He stated that he had found them very efficient in the treatment of gonorrhœa, as the mouth did not perceive the taste of the copaiba, and the stomach did not revolt against the drug. Dr. De Méric observed that his patients took the capsules without repugnance, and never complained of any gastric disturbance. He was sure that many of the fellows would find this kind of sugar-plums very convenient in private practice, as they could be carried in the waistcoat-pocket, and taken at leisure. The speaker touched upon several other points, which we need not repeat here, as they may be found in the number of this journal alluded to above.

Mr. CHIPPENDALE wished to know whether the capsules were sold at a high price. He asked the question because he might be inclined to use them in his dispensary.

Dr. DE MERIC was not prepared to give the information required, as he had confined himself to the pharmaceutical bearing of the matter. But he might venture to say that M. Jozeau would probably charge hospitals and dispensaries a very low price. He thought, at the same time, that the capsules were more calculated for private than public practice.

The PRESIDENT inquired the actual amount of copaiba and cubebs in each capsule.

Dr. DE MERIC could not bring to mind the exact quantity; but we have since been informed that it is sixteen grains of prepared copaiba and about two grains of cubebs for each capsule.

OBSTETRICS.

Scirrhus of the Uterus complicated with Pregnancy; Funis presentation; Delivery.—Mr. I. BROWN read the following case: Mrs. W—, aged thirty-five, an out-patient of St. Mary's Hospital, was under my care from May to July with scirrhus of the os and cervix uteri. The catamenia had ceased for several weeks, but there was a good deal of offensive serous discharge. Her health became so seriously injured, that she was unable to continue her attendance as an out-patient, and I lost sight of her until November 18th, when I was requested by Mr. Hammond, one of the district accoucheurs of the Maternity, to visit her. I found that she had been seized with symptoms of labor the previous day, that the waters had escaped, and that the funis had descended six or eight inches through the os externum; but the thickened edges of the uterus seemed quite unyielding, and the labor made little or no progress. The patient became excessively exhausted, requiring ammonia, brandy, and strong beef-tea. I suggested that they should wait and see if the os dilated a little more, and if it did that delivery should be attempted by turning. Turning was accomplished the following day by Mr. Bullock, resident-surgeon to St. Mary's Hospital, and Mr. Hammond, after considerable difficulty. The fœtus was one of seven months, and had been dead some five or six days. The patient remained in a very exhausted state after her delivery, and when Mr. Brown last saw her, was evidently fast sinking.

In answer to questions, Mr. Brown could not say how long the disease had existed, but he supposed for some time. About half the os was involved in the ulceration.

Dr. ROUTH recollected the case of a woman in Vienna, in whom three fourths of the os were involved in the ulceration. The woman was four days in labor, and died four or five days after delivery. The delivery was effected, not through the os, but on one side of it. The woman died of peritonitis.

Dr. BARNES said that the practical question in this case was, as to the propriety of effecting premature delivery to avoid the passage of a large body through the diseased os. Would such a proceeding give the patient a chance of recovery? He thought that the cases of Dr. Rowland had proved the contrary, and that as death would result whenever delivery took place, life of course would be prolonged by allowing the woman to go the full time.

On the Pathology and Treatment of Sanguineous Pelvic Cysts.—Dr. TILT read a paper on a variety of pelvic tumors, on which the French pathologists have during the last year thrown great light, the cyst being in such cases formed by a considerable quantity of blood effused in the pelvic portion of the peritoneum, or externally to the peritoneum, so as to constitute extra-peritoneal or intra-peritoneal cysts. Dr. Tilt first related several cases from his own practice, from that of Dr. Bell of Glasgow, and from that of Dr. H. Bennet; by which it appeared that the disease was preceded by menstrual irregularities, and that its

origin generally coincided with the suppression or the non-appearance of the catamenia; after which ensued hypogastric swelling, then local pelvic peritonitis, on the subsidence of which a globular tumor was found to fill, more or less, the pelvis, interfering with the passage of both fæces and urine. Dr. Tilt then elucidated the pathology of the previous cases by several others which had terminated fatally in the Paris hospitals, and where the post-mortem examinations were exhibited to the Société de Chirurgie of Paris. The causes of extra-peritoneal sanguineous cysts were extremely obscure. In a case related in "Guy's Hospital Reports," the effusion of blood was caused by the rupture of an aneurismal sac. In another, occurring in the practice of the celebrated Margolin, it was caused by the rupture of varicose sub-peritoneal veins. Light had been thrown on the causes of the intra-peritoneal variety by the post-mortem appearance of a patient under the care of Denonvilliers, of the Hôpital Ste. Marguerite, in Paris. The blood was found to have come from several small ovarian cavities, some of which still contained blood-clots; and in discussing the case, Lenoir, Nelaton and other surgeons of eminence, admitted that in this and similar cases the pelvic tumor was formed by an ovarian hemorrhage taking place during the process of ovulation. Dr. Tilt admitted the explanation, and gave it strength by reminding the Society that during the process of ovulation the ovaries greatly increased in size; that in the normal state the blood-clot taking the place of the ovum was about the size of a cherry; that microscopical observers had sometimes found the capillary vessels much enlarged and broken in the vicinity of the vesicle, and the ovarian tissue so softened that it would tear on the slightest touch, and let the blood-clot escape. Dr. Tilt gave a still surer footing to the views of the French pathologists on this point, by relating a case which had lately occurred in the Lyons hospital, where, after flooding at three successive menstrual periods, peritonitis supervened, and on opening the body, a blood-clot of the size of a horse-bean was found protruding between the rent lips of the ovarian follicle. Having thus established the pathology of intra-peritoneal sanguineous cysts, Dr. Tilt proceeded to illustrate their history by other interesting cases which had lately occurred in the Paris hospitals. One, for instance, was mistaken by Malgaigne for a fibrous uterine tumor. He slit up the neck of the womb to enucleate the supposed tumor, but, finding his mistake, he punctured it, and gave issue to a large quantity of syrupy blood. Hemorrhage from the wounded artery of the neck of the womb could not be controlled, and the patient died. Another case was mistaken for ovarian dropsy, others for metritis. Dr. Tilt observed that sanguineous pelvic cysts did not usually terminate fatally, at often by resolution; the lining membrane of the cyst absorbing its contents, which thus became thicker and thicker, and the tumor diminished. Sometimes, however, the contents were evacuated by rupture the cyst per rectum or per vaginam. Dr. Tilt recommended the cysts to be left to themselves when small, and to increase absorption by moderate venesection, purgatives and low diet; but if they attained a considerable volume, so as to interfere much with micturition and defec-

cation, he advised the tumor to be punctured *per vaginam* with a long trocar. 1st. Because this plan presents a better chance of avoiding wounding the arteries. 2d. Because the trocar being left in the wound permits the gradual evacuation of the blood. 3d. Because it allows the possibility of making injections. But Dr. Tilt likewise admitted the necessity of widely opening the tumor should it contain large fibrinous clots, or if it gave rise to a fetid discharge. With regard to the frequency of the disease, Dr. Tilt did not consider it a common occurrence; and although some twenty cases had been published during the past year by eminent French surgeons or obstetric practitioners, it was so little known in England, that several talented physician-accoucheurs had assured the author that they had not met with it. Dr. Tilt, therefore, submitted, that they might have been mistaken for other complaints; for metritis and incipient pelvic abscess, when the collection of blood is small; for an ovarian tumor when the collection is very considerable; and sometimes for pelvic abscesses, as in Dr. Bell's case, when the blood-clots were mixed with pus. He, therefore, believed that similar cases might be found recorded in English journals by those who would have time and patience to hunt for them.

Dr. DE MERIC inquired if Dr. Tilt had noticed pulsation in the tumors which he had described. In the description of one of the cases, at least, he had spoken of enlargement of the vessels, and of fibrinous deposit, &c.; might not the tumor in this instance have been aneurismal? In those cases in which recovery had taken place, which was the pathological process by which this was effected? The author had stated that he considered that hemorrhage had occurred from the ovary in these cases at some time or other during menstruation. Now this was no doubt from excitement of the ovary. What, then, was the cause of the hemorrhage? Had coitus anything to do with it, or any other stimulant? If we could trace the hemorrhage to any such cause, we might warn the patient. There were, no doubt, however, other circumstances connected with the menstrual period which were favorable to the development of these tumors.

Mr. BROWN regretted that so little of the paper allowed of discussion, as only one of the cases had fallen under the observation of Dr. Tilt himself. He (Mr. Brown) was inclined to think that one, if not two, of the cases, was an iliac aneurism. In the case related as occurring in Dr. Tilt's own practice, no doubt the use of the trocar was proper; but he (Mr. Brown) did not think it would be so in the other cases. He did not agree with Dr. Tilt that these tumors were likely to be mistaken for uterine enlargements, as the uterus could be distinctly felt on examination; but he had seen instances in which they might be mistaken for ovarian tumors. In one case he recollected a sanguineous swelling near to the uterus, which burst into the rectum, and had been mistaken for an ovarian tumor. When the nature of the tumor could be determined by the history, and the mischief was localized, the plan of treatment recommended in the paper was proper, but it should not be resorted to when the swelling came on suddenly. Then a very different mode of proceeding was necessary. He regarded

these cases generally as a sort of uterine apoplexy from obstructed menstruation, and situated in the cellular tissue. He hoped at a future time Dr. Tilt would bring forward cases which would fall under his own observation, as some, no doubt, soon would.

Dr. SAMUEL GRIFFITH found the same difficulty as the last speaker in discussing the paper; but he would briefly relate two cases which had fallen under his own notice, and which appeared to be somewhat analogous to the one detailed by Dr. Tilt. The first was the case of a woman who had been ailing for some time, and had pain and hardness in one of the ovaries, with occasional shivering, and a mucous discharge from the vagina, unaccompanied by ulceration of the cervix uteri. She suddenly became worse, and symptoms of acute peritonitis set in without any apparent cause. Treatment was unavailing, and she died on the seventh day. On examination, it was found that profuse hemorrhage had taken place into the cavity of the peritoneum. It was not confined to the pelvis, and had given rise to suppuration. The point from whence the hemorrhage proceeded could not be detected, and he could not therefore assert that it was from the ovary. In such a case none but general treatment could be adopted, as there were no symptoms to indicate from what cause the disease arose. In another case, which was under treatment in St. Thomas's hospital, the subject was an over-worked servant-girl, somewhat out of health from suppressed menstruation. She had a tumor in the lower part of the abdomen, which was swollen as large as in the seventh month of pregnancy. It resembled pregnancy also in shape. It was painful and tender on pressure; the os and neck of the uterus were healthy. At the end of two months the tumor suppurated, and opened externally in the lower part of the abdomen. The tumor, however, remained of the same size and of the same stony hardness. There was no vaginal discharge. This case, at its termination, might be found to bear some analogy to the cases detailed in Dr. Tilt's paper.

Mr. DENDY regarded Dr. Tilt's cases as mere effusions of blood into the cellular membrane, round which a cyst had been formed, and a tumor was the result. Cases somewhat analogous were occasionally observed during parturition, from effusion of blood into the cellular membrane of the vagina.

Dr. CHOWNE would not enter into the discussion, as he had not seen such cases as those detailed, which were very rare; and if Dr. Tilt waited until he could speak largely from his own experience upon the matter, as was suggested by Mr. Brown, it was probable he would long remain silent. He regarded the cases related as differing in their character, but that generally these blood-tumors were the result of effusion of that fluid into the cellular membrane. He found fault somewhat with the title of the paper, which, strictly speaking, was not on "*pelvic sanguineous tumors*."

Dr. TILT, in reply to Dr. De Méric's suggestion, that some of the cases described might have been cases of aneurism of some large abdominal vessel, observed, that with Dr. Lever's patient he had stated that this was the case, and it might therefore be met with again.

as a cause of extra-peritoneal sanguineous tumors ; but that the other seven cases related could not be confounded with aneurism, for in three out of the seven there were post-mortem examinations, and the other four were related by accomplished observers, able to detect a pulsating tumor, of chronic growth, from those described in the paper. Dr. De Méric also asked whether ovarian inflammation did not play a part in this disease ; but Dr. Tilt thought that care should be taken in ascribing every morbid action to one pathological condition, and said that, when taking into consideration the action of the ovaries, we must not think of these organs as they are met with in the dead body, but as seen by Verdier and Dr. Oldham, when accidentally placed outside the inguinal canal, in which case, at the menstrual periods, they have been observed to swell *enormously* ; that we must think of the softened state of the ovarian tissue surrounding the rent follicle of the ruptured capillaries, attested by microscopical observers, and also of the ruptured blood-vessels seen by them. Dr. Tilt believed, with the French authorities already quoted, that in these cases of *intra-peritoneal* sanguineous cysts, the blood trickled from the rent capillaire, and falling into the recto-peritoneal pouch, caused peritonitis, and therefore a cyst containing blood. Such were Dr. Tilt's views of the pathology of such cases. He could not understand how obstructed circulation could account for them, as had been suggested by Mr. Dendy ; he did not admit that the blood in such cases was merely effused in the areolar tissue, for on post-mortem examinations it was proved that the blood had broken down the areolar tissue, displacing it and the pelvic organs so as to constitute a cyst. Neither could he accept Mr. Brown's explanation, that such sanguine collections were formed by the blood permeating the outward surface of the womb, because, whenever death had afforded an opportunity of investigating the case, a less problematical explanation had been found. Dr. Griffith did not see how fluctuation could be felt if the tumor contained blood, but Dr. Tilt reminded him that in some of the cases, the blood, like menstrual fluid in a distended womb, did not coagulate, being a dark syrupy fluid. Fluctuation was of course less marked or imperceptible when the blood was much coagulated, and when its liquid portions were absorbed. To Dr. Chowne's objection, that some of the tumors described could not be fairly called sanguineous, since the contents were purulent as well as sanguineous, Dr. Tilt added that the peritonitis, by which the blood was confined in the pelvic cavity, might pass to the stage of suppuration, and then pus would be voided with the blood. It had been suggested by Mr. Brown that as the cases described were very common, it was a pity Dr. Tilt had not waited so as to build his paper upon his own researches only ; but Dr. Tilt replied that his reason for bringing the subject before the notice of the Society was the fact of such cases not having been noticed in England ; and he considered it a singular circumstance that Mr. Brown should have frequently met with cases of sanguineous pelvic cysts, when he had been informed by Dr. Murphy and Dr. Oldham, that in their extensive fields of inquiry they had not met with them ; that Dr. Chowne and Dr. H. Bennet had but seldom done so ; and that

they were considered uncommon by many French pathologists who during the past year had drawn attention to the subject.—*Lancet*.

Congenital Occlusion of the Vagina.—Throughout the medical journals are scattered notices of congenital occlusion of the vagina, sometimes combined with obvious arrest of development of the uterus,—sometimes with simply an imperfect condition of the vaginal orifice. We have upon former occasions mentioned the particulars of cases of extroversio vesicæ in the male, where the generative organs were incompletely formed; and we recall an observation made by Mr. Coote, that the arrest of development was not confined to the external parts, but that it extended to the whole segment of the body and the system of organs in which these imperfect structures were situated. The same remark is applicable to congenital occlusion of the vagina. In some instances the nymphæ alone are adherent; in others, one, two, or more inches of the anterior part of the vagina are obliterated; the uterus may be ill formed, and the ovaries in no condition to mature ova, but in all cases the arrest of development of the internal parts is in relation with the amount of external deformity. The practical points connected with this law are equally applicable to the two sexes. In the male, suffering from extroversio vesicæ and fissured penis, the bones of the pelvis are usually small, and the pelvic cavity is shallow; the bladder, almost an abdominal viscus, retains its foetal connexions to the peritoneum; the prostate gland is small and rudimentary; there is no trigon vesicæ uncovered by peritoneum; consequently we read without surprise of surgeons wounding the serous membrane with the trochar in their attempts to establish a rectovesical fistula as a preliminary step in the cure of this malformation. As regards the female, we may infer, that if with congenital occlusion of the vagina there be, at the time of puberty, no indications of the menstrual secretion, both external and internal organs are in a condition which cannot be relieved by surgery; but if the uterus, to all appearance, be healthy; if it become in course of time distended with menstrual secretion, and the patient suffer the usual pains and inconveniences, we may conclude that there is a vagina, an os tinæ, uterus, and ovaries, but that from some cause the external orifice, and an inch or more perhaps of the external meatus, are obliterated and adherent. It follows, then, that an operation, carefully performed, may relieve the patient of this distressing affliction; the vagina may be opened beyond the occlusion, and a canal may subsequently be established by the use of pessaries.

In the *New York Journal*, 1845, there is an account of a young German woman suffering from occlusion of the vagina. She had the sexual passion, but had never menstruated. Her general health was good. On inspection, it was found that she had no vagina. There was no abdominal swelling. Dr. Watson introduced into the urethra a silver catheter, which he committed to the charge of an assistant. Then passing the fore-finger into the rectum, he divided the parts at the natural situation of the vagina, between the catheter and the finger. After dividing an

inch and a half of tissues, the parts yielded to pressure, and the passage was restored to the os tincæ; it was, however, small, and the uterus was atrophied. The passage was kept open by the pessary, and ultimately rendered fit for all its functions by continued distension.

The *Medical Times*, 1845, contains some remarks upon this affection by Dr. Vaudroy; and Maissonneuve has performed an operation similar to that of Dr. Watson and of Mr. Wormald, who has lately successfully treated a case in most points similar to that which we have noticed above from the *New York Journal*.

Emma W., aged 19, a well formed and not bad looking girl, with an unmeaning and vacant expression of countenance, was admitted into St. Bartholomew's Hospital, Nov., 1852, under Mr. Wormald, with complete occlusion of the vagina. The labia, when open, seemed to bound a wall of mucous membrane, in which were seen both clitoris and urethral orifice, but there was no passage towards the uterus. The finger introduced into the rectum came in contact with a solid, elastic, bulging tumor, evidently the uterus distended by menstrual secretion, and pressing upon the anterior wall of the rectum. There was no apparent indication of a vagina, but the uterus bulged downwards to within about two inches of the surface of the perinæum. The patient suffered considerable inconvenience from pain in the back and loins at the menstrual periods; the bowels had become habitually constive. The rectum having been emptied by proper remedies, and the viscera being in a healthy state, Mr. Wormald performed the following operation, December 3:—Chloroform having been administered, and the bladder and rectum previously emptied, the patient was tied, as in the operation of lithotomy. Mr. Wormald made an incision in the perinæum, extending from the left labium obliquely downwards and outwards to the ramus of the ischium in the direction of the os tincæ, and in the interval between the urethra and the rectum, the coats of the latter viscus being indicated by the presence of the forefinger of the left hand introduced per anum. After carefully cutting in this narrow interval for about an inch and a half to two inches, Mr. Wormald came upon some yielding tissues, and then to the uterus. A trocar passed readily (and it was suspected through the os tincæ) into the cavity of the organ, and there was discharged fourteen ounces of thick, grumous, bloody fluid; a gum elastic catheter was introduced, and the patient was then removed to bed. There was an escape of bloody fluid during the next thirty-six hours, but this has slowly subsided; the patient has suffered occasionally from retention of urine, but there have been no unfavorable symptoms, and there is every prospect of a successful result.

Mr. Callender, the house-surgeon, examined the fluid microscopically, and found that it consisted of epithelial scales, and altered blood discs.

There is reason to believe that, in the present instance, the vagina, which was obliterated to an extent of two inches from its orifice, yet existed above that spot, but was occupied by the distended uterus, which has sunk much nearer the perinæum than natural, owing to its great enlargement.—*London Med. Times and Gaz.*

SURGERY.

Re-appearance after Excision of a Non-malignant Growth.—Second Operation. Under the care of Mr. COCK.—John Markman, a farm laborer of robust health, now aged seventy-one, was under Mr. Cock's care five years ago on account of a tumor, the size of a hen's egg, situated on the outer and back part of the right thigh, which had been slowly increasing for five years. It had given him no pain, and his health had not in the least declined since its appearance. Mr. Cock dissected it out, which was easily done, since, although adherent to the skin, it was loose and movable on the parts beneath. It was a lobulated, firm, fibrous-looking mass, not succulent, surrounded by a thin capsule of cellular tissue, the completeness of which rendered it not difficult to be certain that the whole was removed. The wound healed kindly, and the man left the hospital.

In the beginning of November of the present year he again applied for admission, a growth nearly the size of the former one having made its appearance close to the cicatrix. He stated that it began to grow about six months after the operation, and had again increased in size very slowly and painlessly. It now consisted of two portions, connected at the base, one much larger than the other, and each presenting a rounded, well-defined outline. The skin was not ulcerated, and had never been so.

On Nov. 2, Mr. Cock again excised the tumor, removing, as on the former occasion, the superjacent and attached skin. The section of the growth exhibited precisely the same features as before; it was surrounded by a thin capsule, was deeply lobed, and, when cut, the surface became very convex. Its texture was firm, whitish, and crossed in a radiating direction by bands of fibrous tissue. Mr. Burkitt examined its minute structure under the microscope, and discovered the kind of cells characteristic of M. Lebert's "fibro-plastic tumors." The wound soon healed, and the man has now returned home.

We may remark, that all the main points in the history of this tumor were strongly in favor of its being non-malignant. It had caused no pain, had never ulcerated, had existed for ten years, yet no glands had become enlarged, nor had the health of the patient ever been in the least deteriorated.—*Ibid.*

Aneurism after Venesection cured by flexion of the Limb.—M. A. Thierry has lately published, in the *Revue Clinique*, a case of false aneurism at the bend of the elbow, occurring after bleeding from the arm, which he successfully treated in the following manner:—The arm was forcibly flexed, the limb carried over the head, and the hand fixed on the opposite cheek. The patient remained in this painful position for five days, after which time it was changed to that which M. Velpeau generally adopts for fracture of the clavicle—viz., the arm fixed across the chest, and the opposite shoulder. A fortnight after the beginning of this treatment, the tumor was reduced to the size of a nut; the arm was then kept in the same position for another fortnight, after which no sign of any pulsating tumor remained. M. Nélaton, who saw the patient, considered

the case a very remarkable one, as the aneurism has disappeared, and the vessel remains permeable at the seat of the wound. M. Thierry very justly says, that one case is not sufficient to prove the efficacy of any method of treatment, but that the results here obtained are well worthy of attention; he thinks that further trials will perhaps lead surgeons to treat aneurisms of the limbs by forced flexion, femoral aneurism by flexion of the thigh upon the pelvis, and popliteal aneurism by flexing that leg upon the thigh. If we mistake not, M. Thierry's method is founded upon the principle of pressure, and carried out with a great deal of pain and inconvenience to the patient. If the flow of arterial blood through the sac can be graduated, moderated, and rendered very slow by simple and painless means (as is proved by experience,) it is cruel to torture patients by placing them for a whole month in the position given by the immortal statuary to Laocoon.—*Lancet*.

PATHOLOGY AND PRACTICE OF MEDICINE

Polypoid Growth of the Heart. (Reported by Mr. J. E. NIELD, Resident Medical Officer.)—Christopher M——, aged forty-seven, an Irishman, and a discharged soldier on pension; formerly served in India; was admitted as a home-patient of the Rochdale General Dispensary, May 5, 1852. I visited him the same day.

Symptoms.—Continuous vomiting of two days' duration, the egesta being streaked with blood; no pain, except during the act of emesis; tongue coated with a dense white fur; pulse rapid and very compressible; alvine functions normal. Ascertaining that a few days previously he had received his pension, and on the strength of it he had been indulging very freely in beer, I judged the case to be one of gastric derangement occasioned by this just-named excess. I sent the following mixture:—Epsom salts, two drachms; hydrocyanic acid, a drachm; camphor mixture, six ounces; half an ounce every three hours. I sent also a small dose of calomel and opium, to be taken when the vomiting should have subsided, as I believed it would.

May 6th.—On visiting the man to-day, I was for the first time informed that on the 3d instant, during his debauch, he became involved in a quarrel with another man, who, in the scuffle, kicked him over the region of the liver. On making pressure over this organ, there was some indication of tenderness, though not so considerable as to suggest serious lesion. There was no external evidence of injury. The vomiting still continued as incessant as before; the pulse was more labored; some dyspnoea had come on. There was no cough, nor other pulmonic symptom beyond the dyspnoea, to draw attention to the condition of the thoracic viscera. The face was much blanched, and the vital powers apparently fast waning, as if from internal hemorrhage. All the phenomena, in fact, pointed to the probability of rupture of the liver. I ordered the most perfect quietude to be observed, and sent a mixture containing small doses of opium. I visited him again in the evening; the pulse was fluttering; the respiration more oppressed; the vomiting persistent; the system merging on collapse. There was also some disturbance of the intellectual powers. I ordered bottles of hot water to the feet and to the epigastrium.

7th.—Nine A. M. : Pulse a mere thread ; extremities cold ; breathing much oppressed. He died an hour afterwards.

In connexion with Mr. J. E. Wood, one of the staff of this institution, and with his kind and valuable assistance, I made the necropsy, seven hours after death :—

No special external appearances, except a slight contusion on the arch of the nose. The thorax and abdomen being opened, the heart was first examined. The pericardium contained several ounces of serum ; the heart itself was somewhat hypertrophied. On being removed from its attachments, a dense fibrinous mass was seen to hang from the severed pulmonary artery ; the right ventricle being opened, this body was found to terminate in a lash of fibrinous threads, whose delicate extremities were rather firmly connected to the parietes of this cavity, and to the circumference of the auriculo-ventricular valve. In structure it was firm and elastic, nearly resembling tendon ; and to complete the likeness, it was enveloped in a sort of theca, which was jagged and torn in places, as if it had been lately separated from its adhesions to the endocardium. Its length was ten inches ; its weight 189 grains. At its superior extremity it was expanded into a leaf-like process. At about half its length, a process was sent off of some thickness. The walls of the ventricle were of more than normal thickness ; the endocardium was hyper-hæmatus ; the valvular structures of the heart were natural ; the pleurae were almost throughout firmly adherent. The lungs were congested, but otherwise healthy. The liver was enlarged, but in structure healthy. *There was no solution of continuity whatever in any part of this viscus.* The stomach was to all appearance healthy, its mucous coat being, if anything, paler than usual ; it contained several ounces of yellowish fluid, that had the odor of malt liquor. The rest of the abdominal organs were free from disease, with the exception of the kidneys, which were enlarged and mottled. The blood was remarkably fluid.

Remarks.—It is evident that the whole of the phenomena were dependent upon the adventitious formation within the heart. The peculiarity of the symptoms, however, and the fact of previous violence having been experienced, tended altogether to put diagnosis at fault. It cannot be doubted that the polypoid growth had occupied for some time the position in which it was found after death, but that its adhesions had prevented its exercising much influence on the circulating current. Its detachment may be accounted for in two ways—first, by the shock resulting from the blows and falls encountered during the fight—or second, (supposing the sickness to have been consequent on over-imbibition,) by the excessive retching accompanying the vomiting. Perhaps both contributed to this effect. I am less inclined to attribute the vomiting to sympathy with the condition of the heart, inasmuch as when first I visited the patient, I do not remember observing any pulmonic symptoms whatever.

The post-mortem examination was made in obedience to a coroner's order, and the man who had given the kick before spoken of had been placed in custody. I fully believed that the inspection would have disclosed a ruptured liver ; and it seemed highly probable that the inquest would terminate in a verdict of manslaughter. The evidence given, however, being of course in accordance with the facts already detailed, the verdict was the usual one of "Died from natural causes."—*Lancet*

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